# Solvency

#### SMR’s are decades away the 1NC St. Louis Post-Dispatch says they take at least a few decades to scale up.

#### Neg- 9 to 10 years to solve

King et al 11

(Marcus King, Associate Director of Research at The George Washington University's Elliott School of International Affairs LaVar Huntzinger, Thoi Nguyen, “Feasibility of Nuclear Power on U.S.

Military Installations” <http://www.cna.org/sites/default/files/research/Nuclear%20Power%20on%20Military%20Installations%20D0023932%20A5.pdf>, SEH)

The time required to obtain design certification, license, and build¶ the next generation of nuclear plants is about 9 to 10 years. After the¶ first plants are built it may be possible to reduce the time required for¶ licensing and construction to approximately 6 years [45].

# Grid

## A2: Grid

### Microgrid Solves

#### Microgrids got the DOD off the grid

Pike Research 11, market research and consulting firm that provides in-depth analysis of global clean technology markets, 9/16/’11

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

**Military Microgrid Capacity to Experience More than 700% Growth** by 2017¶ September 16, 2011¶ 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.

### 2NC going Off Grid

#### DOD is going off the Grid Now- 1NC Pike Research says we have 700% more microgrids now that solves for any shock we would experience.

#### Military going off grid now

Pacific Business News 10

(Sophie Cocke, “Barking Sands Going Off Grid” <http://islandbreath.blogspot.com/2010/09/barking-sands-going-off-grid.html>, SEH)

Risks of disruption to foreign oil supplies, rising costs of a declining resources and concerns about the security of the nation’s electric grids have spurred efforts to cultivate alternative-energy sources and curtail energy use, according to reports from the U.S. Pacific Command and the Center for Naval Analyses Military Advisory Board.¶ Security of the electric grid is of particular concern.¶ “A fragile domestic electricity grid makes our domestic military installations, and their critical infrastructure, unnecessarily vulnerable to incident, whether deliberate or accidental,” according to a report by the Center Naval Analyses Military Advisory Board.¶ The military also plans to “island” other Hawaii installations, including Schofield Barracks, Kaneohe Marine Corps Base, the Joint Base Pearl Harbor-Hickam and Fort Shafter.¶ But, given that the military is Hawaii’s single largest consumer of electricity, using on average three gigawatts of electricity a day, the impact that its move off-grid could have on consumer rates has caused some concern.¶ “There’s no doubt that more of the burden shifts to the residents as more people who have the means to go off-grid do,” said Brad Rockwell, program manager for the Kauai Island Utility Cooperative. “It will definitely impact us and we would hope they wouldn’t go in that direction. We’ve always had a good relationship with them and hope that we can help them meet their needs as they help us meet ours.”¶ The missile range buys on average 12.5 million kilowatt-hours of electricity a year from the Kauai Island Utility Cooperative, or approximately 3 percent of the utility’s energy sales. With average rates of 32 cents per kilowatt hour, this amounts to a $4 million-a-year energy bill for the Navy.¶ While taking bases off-line could affect consumer rates, a report by the Pacific Command details several ways in which it also can benefit the community, including assisting residents if there is an electrical outage due to a natural disaster. If smart-grid technology is implemented, the bases also can feed excess energy back into Kauai’s electric grid.

## Oil

#### No chance of price spikes and won’t impact the military

Alic, former tech and science consultant – Office of Technology Assessment, adjunt professor – Johns Hopkins SAIS, ‘12

(John, “Defense Department Energy Innovation: Three Cases,” in Energy Innovation at the Department of Defense: Assessing the Opportunities, March)

The **E**nergy **I**nformation **A**dministration expects the 12 members of OPEC, which account for some 70 percent¶ of estimated world reserves, to pump slightly more than 40 percent of world oil production over the next several¶ decades.c U.S. oil imports will remain high. At the same time, supplies have become more diversified since the¶ 1970s, and the OPEC cartel weaker. Canada now ships more oil to the United States than does any other nation¶ (followed by Mexico, and only then Saudi Arabia). **Domestic output has crept upward** in recent years. All **these¶ factors** tend to **argue against** a repetition of unexpectedly **sudden supply constrictions.** So does the dependence of¶ many exporting states on oil revenues as a prop to internal security, by buying off political opponents or buying¶ weapons to suppress them.¶ To some observers, common sense nevertheless seems to imply that dependence on imported oil weakens the¶ U.S. economy, and by extension national security, given that military power depends, if indirectly, on the size¶ and composition of a nation’s economy. **These extrapolations** from dependence on imported oil to some sort of¶ larger national vulnerability **have little foundation in empirically grounded understanding of either economic¶ affairs or military security.** Within the analytical framework of economics, weakness and strength are problematic¶ notions, lacking an accepted basis in quantitative measures; governments collect statistics on output, income,¶ and productivity, not “strength.” Trade deficits, furthermore, are usually taken to be derivative of savings and¶ investment, viewed as the fundamental forces driving a nation’s balance of payments. The implication of this more¶ or less standard view is that a reduction in U.S. imports of oil (e.g., from greater domestic output), would simply¶ lead to a rise in imports of other goods and services. Third, **the relationships between economic performance and¶ military strength are loose.** The Soviet Union, after all, managed to remain a superpower for decades by steering a¶ large share of economic output to its military.¶ The **implications of oil imports for U.S. security** interests, then, **seem oblique.** The administration’s most recent¶

**Public cutbacks solve**

Bartis, PhD chemical physics – MIT, senior policy researcher – RAND, and van Bibber, researcher – RAND, ‘11

(James T. and Lawrence, “Alternative Fuels for Military Applications,” RAND Corporation)

Defense Department goals for alternative fuels in tactical weapon systems should¶ be based on potential national benefits, since the use of alternative, rather than¶ petroleum-derived, fuels offers no direct military benefits. While Fischer-Tropsch¶ fuels and hydrotreated renewable fuels are no less able than conventional fuels to meet¶ the Defense Department’s needs, they offer no particular military benefit over their¶ petroleum-derived counterparts. For example, even if alternative fuels can be produced¶ at costs below the prevailing costs for conventional fuels, they will be priced at market¶ rates. Also, **we are unable to find any credible evidence that sources to produce jet¶ or naval distillate fuel will run out** in the foreseeable future. If conflict or a natural¶ disaster were to abruptly disrupt global oil supplies, **the U.S. military would not suffer¶ a physical shortage.** Rather, the resulting sharp increase in world prices would cause¶ consumers around the world to curb use of petroleum products. Less usage would¶ ensure that supplies remained available. As long as the military is willing to pay higher¶ prices, it is unlikely to have a problem getting the fuel it requires. If problems do arise,¶ the Defense Production Act of 1950 (P.L. 81-774) contains provisions for performance¶ on a priority basis of contracts for the production, refining, and delivery of petroleum¶ products to the Defense Department and its contractors.

# China

### Centrifuges

#### Prolif is inevitable- Centrifuges

Kemp ’12

R. Scott is Assistant Professor of Nuclear Science and Engineering at MIT, “Centrifuges a New Era for Nuclear Non-Proliferation,” <http://www.npolicy.org/userfiles/image/oving%20Beyond%20Pretense%20web%20version.pdf#page=88>

Policy makers have responded to recent cases of centrifuge proliferation by advocating for stronger export controls that would make it ¶ harder for states to build centrifuges. In parallel, policy makers have ¶ also considered new institutional arrangements that would make it ¶ more dif¿cult for states to claim that their acquisition of centrifuge ¶ technology had a peaceful basis. These policies keep with a long **¶** tradition of focusing on the supply of nuclear technology rather than **¶** the demand for nuclear weapons. The newest threat to the supplyside regime has come from black-market transfers: from Germany to Iraq and South Africa, from Holland to Pakistan, and from ¶ Pakistan to Libya, Iran, Syria and North Korea.¶ 4¶ By shutting down **¶** these networks, and by establishing appropriate guidelines for licit **¶** transfers, many hope the centrifuge problem can be largely solved.¶ 5¶ Underlying these proposals, however, is an unspoken assumption ¶ that centrifuge technology can be controlled. The proposals do not **¶** acknowledge that the centrifuge is a fifty-year old device based on **¶** straightforward principles of mechanical engineering, that essentially all of the required design information needed is in the public **¶** domain, or that basic centrifuges require no exotic tools or materials **¶** to make. If centrifuges can be indigenously produced, they cannot **¶** be effectively restrained by technology controls.**¶** The effort needed to make basic centrifuges is, by today’s standards, ¶ quite modest: Prototype centrifuges have been built by small groups **¶** of ten to twenty engineers in one to two years, and such machines **¶** have been subsequently deployed on large scales to make nuclear **¶** weapons (particularly in the Soviet Union). Of the twenty countries **¶** that have successfully acquired centrifuges, seventeen started with small, simple machines of the kind not effectively controlled by export restrictions. Fourteen of them succeeded without foreign assistance in developing these centrifuges to a level suitable for making weapons. An analysis across all twenty programs suggests that ¶ simple centrifuges are probably within the technical capability of **¶** nearly any country, including many or most developing countries.**¶** 6**¶** Supply-side controls would not address this state of affairs; only **¶** motivations and the organizational capacity of states would restrain **¶** centrifuge proliferation. If this is indeed the case, then the nonproliferation system needs rethinking.

#### Overstretches the IAEA

Lyman 11

(Edwin, senior scientist at Global Security Program Union of Concerned Scientists, “An Examination of the Safety and Economics of Light Water Small Modular Reactors” Senate Hearing, <http://www.ucsusa.org/assets/documents/nuclear_power/lyman-appropriations-subcom-7-14-11.pdf>, SEH)

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

#### Causes other countries to sell them

PACE 11

(People’s Alliance for Clean Energy, “Smaller Size, Big Price Tag: Small modular reactors are risky” <http://pacevirginia.org/2011/01/12/smaller-size-big-price-tag-small-modular-reactors-are-risky/>, SEH)

Claim: SMR’s would be safer, posing fewer security risks.¶ Reality: “Mini-nukes” would threaten national security. The United States is not the only country looking to construct SMR’s. In fact, it has been heavily marketed to developing countries whose transmission systems cannot handle large-scale reactors. If pursued in the U.S., Henry Sokolski, executive director of the Nonproliferation Policy Education Center believe that such a program “would open up the door for France and Russia to also start selling these small reactors to nations around the world.” Many of the countries where these “mini-nukes” are being marketed for do not have stable political systems, can be fraught with corruption and security forces are not properly trained to protect the technology and materials which can be used to create nuclear bombs. Additionally, if the U.S. hailed nuclear energy and small modular reactors as the future of energy, it would be impractical if not impossible to simultaneously deny the technology to the rest of the world.

### AT US Competes

#### US companies can’t be competitive

U.S. Department of Commerce International Trade Administration 11

(“The Commercial Outlook for¶ U.S. Small Modular Nuclear¶ Reactors” <http://www.trade.gov/publications/pdfs/the-commercial-outlook-for-us-small-modular-nuclear-reactors.pdf>, SEH)

A number of U.S. companies are pursuing SMR ¶ technology for commercial sale, including GEHitachi Nuclear, Westinghouse Electric Company, ¶ NuScale Power, Babcock & Wilcox, Hyperion ¶ Power Generation, Advanced Reactor Concepts, ¶ and General Atomics. ¶ Just like exporters of traditional large reactors, U.S. ¶ SMR vendors would face intense foreign competition, primarily by state-owned or state-aligned enterprises. Foreign nuclear companies have enjoyed ¶ significant government support, ranging from ¶ direct government ownership and management to ¶ favorable financing, industrial coordination, and ¶ support for manufacturers. ¶ Some U.S. suppliers also regard the lack of international licensing standards as an obstacle to ¶ expanding their business. They say that obtaining ¶ regulatory approval in one market does not provide any “leg up” in obtaining approval in another ¶ market, which means that the process has to be ¶ repeated for each country that the supplier wants ¶ to sell to. However, it is difficult to see how international licensing standards could be developed or ¶ enforced given the unique national circumstances ¶ that factor into a regulator’s licensing decisionmaking. The discretion of these national regulators ¶ cannot be compromised. More generally, U.S. suppliers also say that the lack of regulatory infrastructure in many countries interested in SMR technology is a problem for ensuring the safe and secure ¶ deployment of the technology. This challenge also ¶ applies to larger, traditional reactors.¶ Nuclear liability is a significant concern for SMR ¶ and large reactor designers. Currently, no global ¶ nuclear liability regime exists. This situation not ¶ only complicates commercial arrangements, but ¶ also means that, in the unlikely event of a nuclear ¶ incident, claims for damages would be the subject ¶ of protracted and complicated litigation in the ¶ courts of many countries against multiple potential defendants with no guarantee of recovery. The ¶ IAEA-sponsored Convention on Supplementary ¶ Compensation for Nuclear Damage (CSC) is the ¶ only international instrument that provides the ¶ basis for establishing a global regime, including ¶ countries with and without nuclear power facilities. U.S. nuclear suppliers have stated that the ¶ implementation of CSC is a necessity for pursuing ¶ a major nuclear export program.

## China Good

**East Asian Hegemony Impossible- Counterbalancing**

**Green ’12**

Michael is an associate professor of international relations at Georgetown University. He is also a senior adviser and holds the Japan Chair at the Center for Strategic and International Studies, “China Periphery: Implications for U.S. Policy and Interests,” Foreign Policy Research Institution

**In recent years scholars and policy planners have asserted three possible ¶ scenarios for the future of Asian regional order. The first,** which was common ¶ in the mid-1990s but has largely disappeared, **is the idea of enduring U.S.¶ unipolarity.** For Asia, the high water mark of this brief post-Cold War unipolar ¶ moment was the ’97-’98 financial crisis, when the Clinton administration and the ¶ International Monetary Fund (IMF) tried to impose the so-called “Washington ¶ Standard” of strict market-based conditionality on the emergency economic ¶ stabilization packages to Indonesia, Thailand and Korea. In response, **leading ¶ officials and scholars within Japan, China, Korea and the Association of Southeast ¶ Asian Nations (ASEAN) began challenging the universality of “Western” economic ¶ principles and posited a competing development model based on “Asian values**.” ¶ I Instructively for Beijing today, ASEAN reached out to Tokyo and Beijing to impose ¶ an influence cost on the United States, something we now see member states doing ¶ to China as Beijing overplays its hand. T**he blowback from the clash over economic ¶ ideology in the ’97-98 financial crisis continues to this day, manifest in the Chiang ¶ Mai Initiative, the ASEAN Plus Three free tr**ade talks, and other regional forums ¶ that were deliberately conceived as a counterbalance to U.S. economic ideological ¶ hegemony. **Fifteen years later, of course, the dynamic within the region is very ¶ different, and while the regional reaction to a sudden shift in the distribution of ¶ power after the Cold War was instructive, few expect a return of American ¶ unipolarity, even if it was only a matter of perceptions in the first place.**

#### U.S. influence in Asia is high now- Japan and

**Green ’12**

Michael is an associate professor of international relations at Georgetown University. He is also a senior adviser and holds the Japan Chair at the Center for Strategic and International Studies, “China Periphery: Implications for U.S. Policy and Interests,” Foreign Policy Research Institution

Much as the United States suffered setbacks in the wake of the 1997-98 ¶ financial crisis, **Beijing is now reaping the rewards for its unilateralism, but in ways ¶ that pull the United States in to Asia**, rather than limiting China’s engagement. **The ¶ Japanese government**, after briefly flirting with moving closer to Beijing to counter ¶ U.S. influence under the loopy and hapless first Democratic Party of Japan (DPJ) ¶ government of Yukio Hatoyama, has **now moved the U.S.-Japan alliance squarely ¶ back to the center of its Asia strategy. ASEAN has as well, welcoming** President ¶ **Obama to his first East Asia Summit** in November 2011, **while the Philippines, ¶ Malaysia, Singapore and Vietnam expand security ties with the United States. South ¶ Korea has expanded Naval and Marine Corps exercises** with the United States in the ¶ West Sea, **and Australia is ready to accept a new U.S. Marine Corps base near ¶ Darwin**. To be sure, **China’s missteps have created opportunities for expanded ¶ engagement**, captured in Secretary of State Hillary Clinton’s description of a U.S. ¶ “pivot” to Asia.9

**Chinese Prolif leadership is good- they follow norms and don’t give sensitive tech away**

**Boutin ’11**

J.D. Kenneth is a lecturer in international relations at the School of International and Political Studies at Deakin University in Geelong, Victoria, Australia, “Changing the Guard? China and the Nuclear Non-Proliferation,” Asian Politics & Policy Volume 3, Issue 3, pages 349–364, July 2011

China has had a difficult relationship with the nuclear nonproliferation regime. This has been due in part to generally negative Chinese attitudes toward multilateralism in the past. China was a relatively late recruit to multilateralism. It only gradually broadened its participation in multilateral processes after it took up a seat in the United Nations in 1971, and for some time was not a constructive contributor. China's leaders long displayed a marked preference for unilateral and bilateral foreign policy approaches, and even now often prefer directly engaging other major powers where important policy issues are concerned. China's approach to multilateralism has been characterized as “conditional” as a result of these features (Yuan, 1997, p. 81). China's perspective on multilateralism was conditioned by negative experiences in dealing with the international community from the time of its abrupt introduction into the Eurocentric world order in the mid-19th century until well after the establishment of the People's Republic in 1949, and by the perception that multilateral mechanisms were dominated by states hostile to China's interests. This has left a legacy of distrust of international institutions and a heightened sensitivity over sovereignty, which has been manifest in China's sustained support for the principle of nonintervention in the international system (Medeiros, 2009, p. 254).¶ China was particularly reluctant to engage in multilateralism where security issues were involved. This wariness extended to nonproliferation. China's leaders were quite dismissive of multilateral nonproliferation initiatives, though they did not eschew them altogether. While China acknowledged the importance of and expressed strong support for the principle of nonproliferation, particularly in regard to WMDs, it simultaneously voiced strong concerns over what it regarded as the lack of objectivity of nonproliferation mechanisms (Chu & Rong, 2008, p. 178). Chinese authorities had particular reservations regarding transparency and intrusive verification measures such as on-site inspections (OSIs). Transparency, for example, has been seen in China as a useful instrument for helping to build trust between states, but which should not reveal information that was unavailable (Yuan, 1997, pp. 93–95). China began to participate in the multilateral nonproliferation processes in the late 1970s but provided little support for existing initiatives, preferring instead to offer proposals of its own that it made little effort to develop (Yuan, 2008, p. 56). China was itself the subject of considerable nonproliferation concern for many years due to its apparent willingness to export arms in violation of generally agreed-upon embargoes to conflict zones and on particular types of arms. China served as a “supplier of last resort” to a number of “pariah” states and was suspected of transferring nuclear weapons technologies to Pakistan. China constituted one of the targets of Coordinating Committee for Multilateral Export Control technology controls during the Cold War as a result. Concern over Chinese assistance to horizontal nuclear proliferation now centers around the role of Chinese firms rather than the Chinese government (see, e.g., British Broadcasting Corporation, 2010).¶ The transformation of China's position with respect to multilateralism has been gradual but substantial (Kuik, 2008, pp. 113–119). Chinese authorities have adopted a much more positive view of the contribution of international institutions to Chinese security. Not only have they demonstrated a strong interest in working within the existing framework of the international system, but **China has emerged as a strong supporter of established multilateral processes at the regional and global levels. Chinese authorities** have embraced the “spirit” of multilateralism as they **have deepened** China's **participation in multilateral processes and now are far more accepting of the norms involved** (see Dobson, 2008, p. 193).¶ **China's approach to multilateralism in the area of nonproliferation has mirrored this general trend**, even if it has developed more slowly. Since the 1990s, **China has expanded both the range and the degree of its participation in multilateral nuclear nonproliferation mechanisms. China joined the NPT in 1992, signed the CTBT in 1996, joined the Zangger Committee (also known as the NPT Exporters Committee) in 1997, and became a member of the NSG in 2004**. In addition, **China engages and informally adheres in part to the export guidelines of the Missile Technology Control Regime** and Wassenaar Arrangement, without having formally joined them (see Yuan, 2006, pp. 41–43; Yuan, 2008, pp. 57–59, for useful overviews of the evolution of China's engagement of multilateral nonproliferation processes). **Also noteworthy is China's contribution to the** work of the International Atomic Energy Agency **(IAEA),** which oversees the implementation of the NPT, including through seconding personnel to it. **China also** contributed personnel to United Nations Special Commission inspections of Iraq following the Gulf War of 1990–1991 and **has played a crucial role in the Six-Party Talks process designed to address the nuclear weapons program of the DPRK,** though this is more multinational than multilateral. As one study notes, **China “shifted from being ‘part of the problem’ to ‘part of the solution’** ” to the problem of proliferation (Chu & Rong, 2008, p. 177).1¶ **The seriousness of China's commitment to nuclear nonproliferation has been demonstrated by** its instituting the domestic regulatory measures necessary to support its multilateral commitments. This involves the development of a **national safeguards system for its nuclear facilities and material to verify that there has been no diversion of civil nuclear resources to the development or production of nuclear weapons** or other nuclear explosive devices, as required of all states' parties by Article III.1 of the NPT, **and establishing a national export control regime for sensitive nuclear equipment, materials, and technologies to ensure that it does not contribute to horizontal nuclear proliferation** (Treaty on the Non-Proliferation of Nuclear Weapons, 2005).¶ The progressive development of the national basis of support for the nuclear nonproliferation regime by China is significant in another crucial respect. The transformation of China's approach to aspects of the nuclear nonproliferation regime that formerly were viewed with some concern demonstrates that it is embracing the norms as well as the practices of multilateralism in this issue area, which, like all those that impact security, remain sensitive to Chinese authorities. In fact, **China has demonstrated the depth of its commitment to and support for the nuclear nonproliferation** regime **by subjecting itself to a far higher level of verification than it is required to under the NPT.** China did this by signing the IAEA's Additional Protocol in 2002 (Yuan, 2008, p. 59). This complement to a comprehensive safeguards agreement commits China to a far more extensive verification regime intended to address the issue of undeclared as well as declared nuclear activities and materials (IAEA, n.d.).¶ 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.

## China no danger

#### China’s not a dangerous power- Westinghouse Reactor is designed by the U.S. and happened because we asked the Chinese to build it

Ramana & Saikawa ’11

M.V. and Eri are respectively, a Nuclear Futures Laboratory and Program on Science and Global Security, Woodrow Wilson School of Public and International Affairs, Princeton University, 221 Nassau Street, Floor 2, Princeton, NJ 08542, USA Joint Program on the Science and Policy of Global Change, Massachusetts Institute of Technology, 77 Massachusetts Avenue, MIT bldg. 54-1413, Cambridge, MA 02139, USA, “Choosing a Standard Reactor: International Competition and Domestic Politics in Chinese Nuclear Policy,” Energy Volume 36, Issue 12, December

In September 2004, China put out tenders for two Generation III reactors to be installed in Sanmen and Yangjiang. SNPTC, directly under China’s State Council, was in charge of technology selection [6]. More than 10 international nuclear vendors put in bids, with Areva and Westinghouse being shortlisted [1]. Areva’s bid was backed by Coface, the French export credit agency while the Export Import Bank of the United States approved $5 billion in loan guarantees for the Westinghouse tender [63]. The decision on reactor type was delayed, and came under review at the highest political level rather than China’s energy planning bureaucracy [64].¶ One reason for the delay was CNNC reportedly pushing for its indigenous reactor designs at both sites [6]. Eventually, in 2006, the Westinghouse bid to construct two AP-1000s was accepted. Areva’s EPR lost out to Westinghouse’s AP-1000 because Westinghouse was more open to the idea of transferring its technology to China [2].¶ Soon thereafter, early in 2007, the two units planned for Yangjiang were shifted to Haiyang. The following year, the government approved the largest nuclear project till that point, which is to involve the construction of six CPR-1000s [65]. Just eleven days later, after a ceremony to celebrate the start of work on these units, construction of two more CPR-1000s started in Fangjiashan [66]. Note that the chosen reactor designs were not the CNP-1000 that CNNC had designed, but something that CGNPC favored. At the same time, this is a Generation II reactor design.¶ Much political capital was invested by the United States in securing the contract for Westinghouse. Letters of support were provided by officials at the U.S. Departments of Commerce, Energy, and State as well as the U.S. ambassador to China [67]. The U.S. Commercial Service introduced Westinghouse officials to high-level Chinese decision makers. Westinghouse officials were included in an official trade mission led by the U.S. Secretary of Commerce. Another factor in favor of the choice of Westinghouse was intense U.S. pressure on China to reduce its trade balance with the United States [68].¶ Westinghouse had played an important part in getting the U.S. government to allow nuclear reactor sales to China in the mid 1990s. Around that period, U.S. nuclear vendors started becoming increasingly restive about not being allowed to sell reactors to China due to United States not having a nuclear agreement with the country.16 Westinghouse teamed up with companies such as Bechtel, Asea Brown Boveri, and Stone & Webster Engineering in a lobbying and public relations campaign that stressed domestic job creation in the United States from reactor and other nuclear technology sales to China [69]. Michael Jordan, chairman and chief executive of Westinghouse, argued that continuation of nuclear sanctions would “result in the loss of tens of thousands of jobs across 28 states and the gradual elimination of the trained personnel base now supporting more than 100 U.S. nuclear power plants and the nuclear Navy”. The lobbying was successful, in part because it fit well within the broader strategy of the Clinton administration, which focused on exports and was seeking for a way by which U.S. companies could beat the challenge from European, Canadian and Japanese competitors in Asia’s energy sector.

### China Leadership Good- Norms

#### Chinese Prolif leadership is good- they follow norms and don’t give sensitive tech away

Boutin ’11

J.D. Kenneth is a lecturer in international relations at the School of International and Political Studies at Deakin University in Geelong, Victoria, Australia, “Changing the Guard? China and the Nuclear Non-Proliferation,” Asian Politics & Policy Volume 3, Issue 3, pages 349–364, July 2011

China has had a difficult relationship with the nuclear nonproliferation regime. This has been due in part to generally negative Chinese attitudes toward multilateralism in the past. China was a relatively late recruit to multilateralism. It only gradually broadened its participation in multilateral processes after it took up a seat in the United Nations in 1971, and for some time was not a constructive contributor. China's leaders long displayed a marked preference for unilateral and bilateral foreign policy approaches, and even now often prefer directly engaging other major powers where important policy issues are concerned. China's approach to multilateralism has been characterized as “conditional” as a result of these features (Yuan, 1997, p. 81). China's perspective on multilateralism was conditioned by negative experiences in dealing with the international community from the time of its abrupt introduction into the Eurocentric world order in the mid-19th century until well after the establishment of the People's Republic in 1949, and by the perception that multilateral mechanisms were dominated by states hostile to China's interests. This has left a legacy of distrust of international institutions and a heightened sensitivity over sovereignty, which has been manifest in China's sustained support for the principle of nonintervention in the international system (Medeiros, 2009, p. 254).¶ China was particularly reluctant to engage in multilateralism where security issues were involved. This wariness extended to nonproliferation. China's leaders were quite dismissive of multilateral nonproliferation initiatives, though they did not eschew them altogether. While China acknowledged the importance of and expressed strong support for the principle of nonproliferation, particularly in regard to WMDs, it simultaneously voiced strong concerns over what it regarded as the lack of objectivity of nonproliferation mechanisms (Chu & Rong, 2008, p. 178). Chinese authorities had particular reservations regarding transparency and intrusive verification measures such as on-site inspections (OSIs). Transparency, for example, has been seen in China as a useful instrument for helping to build trust between states, but which should not reveal information that was unavailable (Yuan, 1997, pp. 93–95). China began to participate in the multilateral nonproliferation processes in the late 1970s but provided little support for existing initiatives, preferring instead to offer proposals of its own that it made little effort to develop (Yuan, 2008, p. 56). China was itself the subject of considerable nonproliferation concern for many years due to its apparent willingness to export arms in violation of generally agreed-upon embargoes to conflict zones and on particular types of arms. China served as a “supplier of last resort” to a number of “pariah” states and was suspected of transferring nuclear weapons technologies to Pakistan. China constituted one of the targets of Coordinating Committee for Multilateral Export Control technology controls during the Cold War as a result. Concern over Chinese assistance to horizontal nuclear proliferation now centers around the role of Chinese firms rather than the Chinese government (see, e.g., British Broadcasting Corporation, 2010).¶ The transformation of China's position with respect to multilateralism has been gradual but substantial (Kuik, 2008, pp. 113–119). Chinese authorities have adopted a much more positive view of the contribution of international institutions to Chinese security. Not only have they demonstrated a strong interest in working within the existing framework of the international system, but China has emerged as a strong supporter of established multilateral processes at the regional and global levels. Chinese authorities have embraced the “spirit” of multilateralism as they have deepened China's participation in multilateral processes and now are far more accepting of the norms involved (see Dobson, 2008, p. 193).¶ China's approach to multilateralism in the area of nonproliferation has mirrored this general trend, even if it has developed more slowly. Since the 1990s, China has expanded both the range and the degree of its participation in multilateral nuclear nonproliferation mechanisms. China joined the NPT in 1992, signed the CTBT in 1996, joined the Zangger Committee (also known as the NPT Exporters Committee) in 1997, and became a member of the NSG in 2004. In addition, China engages and informally adheres in part to the export guidelines of the Missile Technology Control Regime and Wassenaar Arrangement, without having formally joined them (see Yuan, 2006, pp. 41–43; Yuan, 2008, pp. 57–59, for useful overviews of the evolution of China's engagement of multilateral nonproliferation processes). Also noteworthy is China's contribution to the work of the International Atomic Energy Agency (IAEA), which oversees the implementation of the NPT, including through seconding personnel to it. China also contributed personnel to United Nations Special Commission inspections of Iraq following the Gulf War of 1990–1991 and has played a crucial role in the Six-Party Talks process designed to address the nuclear weapons program of the DPRK, though this is more multinational than multilateral. As one study notes, China “shifted from being ‘part of the problem’ to ‘part of the solution’ ” to the problem of proliferation (Chu & Rong, 2008, p. 177).1¶ The seriousness of China's commitment to nuclear nonproliferation has been demonstrated by its instituting the domestic regulatory measures necessary to support its multilateral commitments. This involves the development of a national safeguards system for its nuclear facilities and material to verify that there has been no diversion of civil nuclear resources to the development or production of nuclear weapons or other nuclear explosive devices, as required of all states' parties by Article III.1 of the NPT, and establishing a national export control regime for sensitive nuclear equipment, materials, and technologies to ensure that it does not contribute to horizontal nuclear proliferation (Treaty on the Non-Proliferation of Nuclear Weapons, 2005).¶ The progressive development of the national basis of support for the nuclear nonproliferation regime by China is significant in another crucial respect. The transformation of China's approach to aspects of the nuclear nonproliferation regime that formerly were viewed with some concern demonstrates that it is embracing the norms as well as the practices of multilateralism in this issue area, which, like all those that impact security, remain sensitive to Chinese authorities. In fact, China has demonstrated the depth of its commitment to and support for the nuclear nonproliferation regime by subjecting itself to a far higher level of verification than it is required to under the NPT. China did this by signing the IAEA's Additional Protocol in 2002 (Yuan, 2008, p. 59). This complement to a comprehensive safeguards agreement commits China to a far more extensive verification regime intended to address the issue of undeclared as well as declared nuclear activities and materials (IAEA, n.d.).¶ 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.