# 1

## The United States Federal Government should initiate a binding substantive environmental impact statement, including but not limited to a health impact assessment regarding the consequences of [substantially increasing market-fixed production cost incentives for electricity from Small Modular Liquid Fluoride Thorium Reactors for military facilities in the United States.] and adopt such measure only if it can be made consistent with the results of the statement. We’ll clarify.

## CP solves-public participation is key and equity norms make the plan more sustainable

**Bratspies, CUNY law professor, 2010**

(Rebecca, “The Intersection Of International Human Rights And Domestic Environmental Regulation”, 8-20, <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1662576>, DOA: 8-18-12, ldg)

There are many lessons to draw from the Chukchi Sea saga. For now, we will focus on how employing the emerging norms associated with the right to a healthy environment might have channeled agency discretion down paths that supported, rather than undermined, regulatory legitimacy. As hard choices are made with regard to priorities, the emerging international environmental norms of precautionary decision-making, advanced informed consent, intergenerational equity, and common but differentiated responsibility might have led to better, more sustainable decision-making. The NEPA requirement that the agency prepare an EIS before making a decision about leasing already serves a number of purposes related to those captured by emerging international environmental norms. First, an EIS promotes transparency by requiring the government to identify proposed actions and to solicit comments thereon. Second, an EIS promotes participation by allowing all interested to comment. However, the EIS requirement would be enhanced if it were interpreted in concert with the emerging international environmental norm of advanced informed consent and the right to environmental information. These norms embody a different and more robust concept of public participation than currently seen under United States law. They require the government to make the right to participate concrete by actively soliciting participation from groups, particularly indigenous groups, that might otherwise not participate in the decision-making process. If NEPA were interpreted along those lines, voices that typically do not get attention prior to post-decision-making litigation—if indeed they are heard at all—would become an integral part of shaping the EIS inquiry itself. As a result, the government would hear a more diverse array of voices when they could do more good—when the government is deciding the scope of activity to investigate, rather than at a later litigation phase, challenging a decision that is already a fait accomplis. Giving those typically under-represented groups a special role in the conduct of an environmental assessment, a new and improved EIS process would also help promote the additional emerging norm of inter-generational and intra-generational equity. Particularly where irreversible changes are contemplated, intergenerational equity would put a thumb on the scale for precaution, sustainably managing and preserving rather than overexploiting resources. Similarly, embracing the venerable international environmental norm that ―the polluter pays‖ (which dates back to at least the 1941 Trail Smelter Arbitration)91 would keep regulatory attention focused on the environmental effects of conduct like oil and gas exploration. A regulatory system infused with this principle would not sideline questions of environmental damage, and a court system that viewed polluter pays as an integral part of a justiciable human right would be far less likely to dismiss claims on political question or standing grounds. Because the Chukchi Sea process was so poorly managed from an environmental rights perspective, it also raises the question of whether a human right to a healthy environment could have restrained the government in its relentless attempt to promote oil exploration in this pristine area. When a government does not care about the environment and bends existing law to avoid giving force to environmental rights, would a claimable human right make a difference? The answer is both yes and no. A government bent on violating human rights can certainly do so. But, the existence of a vibrant jurisprudence of human rights means that it can no longer do so with impunity. If the United States recognized a human right to a healthy environment, it would have been much more difficult to play fast and loose with environmental statutes than it was for the Bush Administration in the Chukchi Sea. Such a right would remove the standing hurdle that keeps so many of these issues out of court. Even without a justiciable human right to a healthy environment, if existing United States‘ environmental rights were imbued with more of a human rights sensibility it might create a culture shift that would make scenarios like the Chukchi Sea leases less likely.

## Binding assessment serves as a template to solve climate change.

**Christopher, JD and Advistor to United Nations Mission of the Republic of the Marshall Islands, 2007**

(Caleb, “Success By A Thousand Cuts: The Use Of Environmental Impact Assessment In Addressing Climate Change”, Vermont Journal of Environmental Law, lexis, ldg)

This pursuit for a singular global solution can be likened to many fables, one of which might be King Arthur’s legendary search for the Holy Grail. In the satirical film Monty Python and the Quest for the Holy Grail, a fictional King Arthur knocks upon the walls of a castle and announces his noble search, only to discover that a taunting Frenchmen within the fortress claims “we’ve already got one.” A disbelieving King Arthur retreats to continue his search, only to discover to his chagrin, at the film’s end, that the sarcastic Frenchmen did indeed have the Holy Grail. In analyzing the ability of Environmental Impact Assessment (EIA) to address climate change issues, one hopes that global decision-makers do not repeat King Arthur’s follies by completely forsaking an obvious answer. That the United States Senate first recognized the viable application of EIA to climate change in the mid-1980s, and that this application is still not accepted professional practice, suggests that we are still searching in vain for the “Holy Grail” of unified global policy solutions. Based upon the framework first codified in the United States’ National Environmental Policy Act of 1970 (NEPA), EIA is a generic term which encompasses a wide spectrum of national and regional laws, which all mandate a similar pattern of informed governmental decision-making for specific policies, approvals or infrastructure projects. EIA is codified in the US at both the federal level, as NEPA, and the state level (over 34 states have so-called “little NEPAs” imposed upon state agencies). In addition, important international institutions, including the World Bank, mandate EIA for specific funded projects. In addition to the US, over 100 nations have unilaterally adopted EIA; although beyond the focus of this article, EIA is well on its way to achieving the status of customary international law. Although the precise application varies somewhat depending upon the jurisdiction, EIA applies to major government actions, such as the funding of an infrastructure project, adoption of an administrative rule or policy, or discretionary approval of a private development project. EIA generally requires agencies to first identify and study a wide variety of ecological and social impacts from proposed actions, then evaluate multiple alternative actions, and, to varying degrees of effectiveness, finalize an alternative which balances the agency’s initial goals with environmental stewardship. While EIA may (and often does) address environmental issues in a rote fashion long after decision-makers have reached consensus, it also holds the promise as a creative means of integrating conflicting public goals. EIA’s success (or failure) as a means to advance environmental goals is often rooted in the method or sincerity of its application. The outcome of an EIA project is often determined by the questions investigated during the study process. The primary international models for management of climate change, namely the Kyoto Protocol and United Nations Framework Convention on Climate Change, are still in formulation - and in jeopardy of failure, as certain developed and developing states have not fully assented to the treaty, and participant states may not meet benchmark emissions goals. Alternative models for coping with climate change, such as EIA, provide valuable secondary tools which immediately advance the issue, and work towards establishment of a primary international mechanism. EIA has traditionally been used to address more obvious and localized ecological impacts. In practice, EIA has had an increasing tendency to operate at an “autopilot” setting, producing voluminous amounts of technical data, but often not taking advantage of the process as an opportunity for creative decision-making. This practice has led to the mistaken presumption that EIA is unable to tackle the complex challenges of climate change. Climate change is a non-traditional environmental topic in that there is an immense volume of cumulative contribution of pollutant gasses, but that there are few, if any, major contributing sources responsible for a distinctive degree of environmental harm divisible from other sources. However, this article, in explaining both the known (and unknown) science of climate change as well as the creative flexibility inherent within EIA, demonstrates that EIA can readily analyze and discuss climate change issues in a wide variety of projects. An EIA project can often easily quantify the expected amount of specific greenhouse gasses associated with a particular project, but need not always do so. EIA projects also evaluate (and sometimes implement) means of mitigating or minimizing significant environmental effects. Because of the vast cumulative nature of emissions contributions, it is difficult to quantify with reasonable precision a “significant” amount of greenhouse gas emissions. Yet such definition is critical to the application of EIA to climate change. The overwhelming global scale of climate change, which also lacks localized direct impacts, permits no easy scientific delineation between a significant and an insignificant increase in GHG emissions. The only factor by which significance is judged is the aggregate rate of increase in emissions. The use of a small rate of increase in GHG emissions as a benchmark both permits minimal increases but also ensures that the cumulative impact of infrastructure and development projects will not substantially interfere with other government policies to significantly reduce GHG emissions. The use of EIA as a means of integrating climate change planning into project-level decision-making will not be considered a primary means to manage global climate change. Climate change strategies must not only ensure that future projects do not increase GHG emissions, but must also tackle existing emissions levels. EIA is not intended – and could not be used – as a comprehensive regulatory or market strategy. Yet as a secondary path, this method provides many compelling advantages. EIA is already a unilateral global custom; it needs no lengthy conferences and no time-consuming treaties. Nor does it require the debate, creativity, political diplomacy or technical study needed to bring about a novel global solution. Rather, this application can be immediately brought into force using existing laws which have been well seasoned by litigation and decades of practice. EIA works to familiarize decision-makers and private interests with the practical, local decisions which will help to implement a multi-faceted global approach to climate change. The use of EIA to address climate change only compliments, rather than contradicts, any range of existing or future regulatory schemes specifically addressing climate change. Moreover, the inherent creativity and deference provided to government agencies in carrying out EIA allows EIA to become a laboratory for novel approaches to integrate climate change into decision-making. EIA’s power for implementing environmental policy is grossly underestimated. EIA laws are modeled upon NEPA’s “hard look” standard and balanced decision-making, and provide the opportunity to creatively integrate lofty environmental goals into very a very specific level of decision-making and design. As climate change creeps outwards from the staid halls of diplomacy and into the daily lexicon of civil society, designers and low-level bureaucrats, EIA may prove particularly effective in linking global goals with municipal action.

# 2

## Debt ceiling compromise likely now but Obama has to maintain the political upper hand to avoid economic collapse.

**Klein, Washington Post politics writer, 1-2-13**

(Ezra, “The lessons of the fiscal cliff”, <http://www.washingtonpost.com/blogs/wonkblog/wp/2013/01/02/the-lessons-of-the-fiscal-cliff/?wprss=rss_ezra-klein>, DOA: 1-4-13, ldg)

There is a narrative in American politics that goes something like this: The White House can’t negotiate. House Republicans can’t be reasoned with. And so the country is caught between pragmatists who can’t hold their ground and radicals who can’t compromise. **The last few days complicate those narratives.** The White House didn’t hold firm on their promise to let the Bush tax cuts expire for all income over $250,000. They agreed to a $450,000 threshold instead. But at the same time, they pocketed more than $600 billion in revenue, $30 billion in extended unemployment benefits and five years of stimulus tax credits without giving up any real spending cuts. Speaker John Boehner, negotiating on behalf of House Republicans, rejected the White House’s offers for a bigger deal that included big spending cuts and watched his “plan B” die on the House floor. But, with the support of many of his members, he ended up shepherding the McConnell-Biden package towards final passage. Republicans realized they couldn’t be blamed for pushing the country over the cliff. The question of who “won” the fiscal cliff won’t be answered till we know what happens when Congress reaches the debt ceiling. The White House says that there’ll be no negotiations over the debt ceiling, and that if Republicans want further spending cuts, their only chance is to hand over more tax revenue. If they’re right and they do manage to enforce a 1:1 ratio of tax hikes to spending cuts in the next deal, they’re going to look like geniuses. Republicans swear they are crazy enough to push the country into default, and they promise that the White House isn’t strong enough to stand by and let it happen. If they’re right, and the White House agrees to big spending cuts absent significant tax increases in order to avert default, then Republicans will have held taxes far lower than anyone thought possible. But both Republicans and Democrats can’t be right. If we take the lessons of this negotiation, here’s what will happen: The White House will negotiate over the debt ceiling. They’ll say they’re not negotiating over the debt ceiling, and in the end, they may well refuse to be held hostage over the debt ceiling, but the debt ceiling will be part of the pressure Republicans use to force the next deal. The White House fears default, and in the end, they always negotiate. That said, the Republicans aren’t quite as crazy as they’d like the Democrats to believe. They were scared to take the country over the fiscal cliff. They’re going to be terrified to force the country into default, as the economic consequences would be calamitous. They know they need to offer the White House a deal that the White House can actually take — or at least a deal that, if the White House doesn’t take it, doesn’t lead to Republicans shouldering the blame for crashing the global economy. That deal will have to include taxes, though the tax increases could come through reform rather than higher rates. The Republicans also have a problem the White House doesn’t: The public broadly believes they’re less reasonable and willing to negotiate than the Democrats are. The White House has a reputation for, if anything, being too quick to fold. They have more room to avoid blame for a default than the Republicans do. In the end, if the White House holds its ground, Republicans will likely compromi**se** — though only after the White House has done quite a bit of compromising, too. The final moments of the fiscal cliff offered evidence that both sides see how this is going to go. In his remarks tonight, President Obama signaled he would hold firm on the debt ceiling. “While I will negotiate over many things, I will not have another debate with this Congress over whether or not they should pay the bills they’ve already racked up through the laws they have passed,” he said. And Boehner signaled that he knows tax reform will have to be part of the next deal. The post-deal press release his office sent out had the headline, “2013 Must Be About Cutting Spending and Reforming the Tax Code.” That said, the final days of the fiscal cliff, in which the deal almost broke apart a half-dozen times for a hal-dozen reasons, is a reminder that these tense, deadline negotiations can easily go awry. And so there’s a third possibility, too: That the White House is wrong about the Republicans will compromise, that the Republicans are wrong that the White House will fold, and so we really will breach the debt ceiling, unleashing economic havoc.

## Top of the docket and PC is key

**Feehery, Quinn Gillespie and Associates government affairs director, 1-2-13**

(John, “The Clock”, <http://www.thefeeherytheory.com/2013/01/02/the-clock/>, DOA: 1-4-13, ldg)

The small tax agreement passed by the House last night makes it harder for Obama to do other things with his time in the White House. That is the inevitable truth that seems lost on conservatives who opposed a deal to make permanent 98% of the Bush tax cuts. Mitch McConnell is a master at clock management, and as minority leader, his job is to make it as hard as possible for the President to enact his left-wing agenda. As I wrote yesterday, McConnell was the master strategist who decided that the Congress would deal first with taxes and then with spending. Conservative leaders (well, the ones most desperate to raise money attacking Republicans) are professionally apoplectic. They can’t believe that Republicans didn’t get any spending cuts included in this deal, after they torpedoed John Boehner’s plan which included massive spending cuts and popular tax provisions. But Plan C wasn’t designed to include spending cuts, you blithering idiots. That comes later, in the fight over the debt limit. The President has already declared that the debt limit is off the table, but of course, we all know that **he is posturing. Nothing is off the table**, and the fact of the matter is that Republicans need to come up with substantial spending cuts if they are to gain the respect of their political base. After the fight on the debt limit will come a fight on sequester. After the fight on the sequester will come a fight on the 2013 Appropriations bills. All of these fights will take the time and attention of the President himself. All of these fights will take political capital and energy and promises. By focusing on the budget issues, Republicans make it harder for the President to focus on other things, like immigration and gun control, and whatever crazy left-wing agenda items he might want to add to the list. Imagine if last night, the grand bargain came together, and Republicans and Democrats cleared up everything in one vote. The President wouldn’t have high-fived the Speaker and said, “my job is done here.” He would have moved on to gun control. He can’t do that now. Now he has to talk exclusively about the debt limit. He has to burn up political capital on an issue that dove-tails quite nicely with out-of-control spending. The clock is running out on the Obama White House, and the more time we talk about fiscal issues, the less time he has to get his left-wing agenda through the Congress.

**DOD alternative energy investment draws Congressional opposition-empirics**

**Wilder, Clean Edge contributing editor, 12**

(Clint, Clean Edge, a research and strategy firm in the San Francisco Bay Area and Portland, Oregon, "On Clean Energy, the Military's Biggest Fight is with Congress," 8-30-12, http://www.renewableenergyworld.com/rea/news/article/2012/08/on-clean-energy-the-militarys-biggest-fight-is-with-congress, accessed 11-3-12, mtf)

The Pentagon has ambitious goals to reduce fossil-fuel use in both combat operations and on bases; the Navy and Air Force, for example, both aim to get half their fuel from non-petroleum sources by 2020. And with good reason: fuel convoys to supply infantry in Iraq and Afghanistan have proven to be one of the most vulnerable aspects in the war theater. In an all-too-common example on July 18, a bomb planted by the Taliban destroyed 22 NATO tanker trucks in northern Afghanistan. This occurred in the same week as the Navy’s Great Green Fleet exercises occurred in Hawaii, showcasing a better way. **But now, in Congress, a great deal of this may be in jeopardy**. In various hearings over the past few months, **Senators** James Inhofe (R-Okla.) and John McCain (R-Ariz.) and U.S. Rep. Randy Forbes (R-Va.), among others, **have opposed the military’s biofuels usage because of high costs**. I’m skeptical that other aspects of defense spending are receiving the same fiscal scrutiny–these members of Congress are in the same party whose presumptive presidential nominee Mitt Romney is on record stating, “I will not cut the military budget.” The Congressional opponents argue that today’s next-generation biofuels, from algae, waste streams, and other feedstocks, are significantly more expensive than fossil fuels, and that is certainly true. But **they also argue that it’s not the Pentagon’s role to pay a premium to help bring new tech**nologies **to commercial scale that would bring costs down**, and that argument conveniently ignores, oh, about 150 years of U.S. military history. As Navy Secretary Ray Mabus often says, “Since the 1850s, the Navy has moved from sail power to coal to oil to nuclear. And every time we changed, plenty of people said the new energy source was too expensive, too hard, and too unproven. But every time, we made a better Navy.”

## Global economic crisis causes another nuclear war

**Merlini, Center on the United States and Europe nonresident senior fellow, 2011**

(Cesare, “A Post-Secular World?”, Survival, 53.2, ebsco, ldg)

Two neatly opposed scenarios for the future of the world order illustrate the range of possibilities, albeit at the risk of oversimplification. The first scenario entails the premature crumbling of the post-Westphalian system. One or more of the acute tensions apparent today evolves into an open and traditional conflict between states, perhaps even involving the use of nuclear weapons. The crisis might be triggered by a collapse of the global economic and financial system, the vulnerability of which we have just experienced, and the prospect of a second Great Depression, with consequences for **peace and democracy** similar to those of the first. Whatever the trigger, the **unlimited exercise of national sovereignty,** exclusive **self-interest** and rejection of outside interference would self-interest and rejection of outside interference would likely be amplified, **empty**ing, perhaps entirely, the half-full glass of **multilateralism**, including the UN and the European Union. Many of the more likely conflicts, such as between Israel and Iran or India and Pakistan, have potential religious dimensions. Short of war, tensions such as those related to immigration might become unbearable. Familiar issues of creed and identity could be exacerbated. One way or another, the secular rational approach would be sidestepped by a return to theocratic absolutes, competing or converging with secular absolutes such as **unbridled nationalism.**

# 3

## Engaging political questions corrupts our relationship to god

**Copeland, University of Miami School of Law associate professor, 9**

(Charlton C., "God-Talk in the Age of Obama: Theology and Religious Political Engagement," Denver University Law Review, 86 Denv. U.L. Rev. 663, 2009, l/n, accessed 1-27-12, mss)

The rejection of the social order and its culture as a response to the call of Jesus Christ represents the separatist resolution to the problem of Christ and Culture. Based on its theological interpretation of both the identity and activity of Jesus Christ and the social order as impossibly at odds, the exclusivist Christian articulates a resolution that places Christ against culture. The exclusivist reads the gap between Christ and culture as unbridgeable, and resolves that **the social order must be rejected, if Christ is to be retained**. **The rejection of "the world" and abdication of responsibility for its transformation is the outcome** of the exclusivist's theological worldview. Adherents of the exclusivist type foreground Jesus' identity as the founder of a new law. The exclusivist's interpretation of the meaning of the life of Jesus emphasizes the power, authority, and love of God, as evidenced in the person of Jesus, and the command that man respond to God through love of neighbor. n16 Jesus inaugurates a new order at whose root lies love. To the extent that the "new creation" requires a changed community, the evidence of the community's authentic commitment to the sovereignty of Jesus is its response to the commands of God in its actions. This chasm between the new creation and the social order is evident in the gap between the norms that govern each domain. In contrast to the "new creations" norm of love, the social order is governed and maintained by power, violence, and threat. n17 Richard Niebuhr describes the exclusivist type's view of the created order is "a realm under the power of evil." n18 The relationships in the realm of the world "characterized by the prevalence in it of lies, hatred, and murder; it is the heir of Cain." n19 The exclusivist's separation of Christ from culture is parasitic upon his understanding of the "nature and prevalence of sin." The exclusive Christian is required to reject the world because it continues to be a place in which sin persists. In fact, the world is not merely the place in which sin is resident, but the exclusivist maintains that sin is endemic to the world. Rather than explaining the prevalence of sin by locating it in hu [\*669] man nature, the exclusivist sites the explanation for sin's continued prevalence in the corrupted culture in which humanity resided. By distinction, those who are members of the community marked by the sovereign lordship of Jesus "have passed from the darkness [of the culture] into the light," and must separate from the world in order to maintain the purity and integrity of this community. n20 The exclusivist discourages Christian involvement in political life. Political life is envisaged as brutish and base. Political life in the social order is seen as involving nothing more than the pursuit and deployment of power. **The state and its maintenance through political life are incompatible with Christianity.** Beyond the merely neutral recognition of the state as necessary for the constraint of an otherwise sinful order, the exclusivist sees the state as "the chief offender against life." n21 The only safety against its domination is "nonparticpation." Thus the only appropriate resolution to the conflict between life in Christ and life in culture is near-complete separation of the two realms.

## Your ultimate concern ought to be how to be properly related to God- it’s the only worthwhile source of value

**Craig, Talbot School of Theology philosophy research professor, 4**

(Dr. William Lane, Ph.D. in philosophy from the University of Birmingham (England), Th.D. under from the University of Munich, "Does God Exist?" 2004, delveintojesus.com/Articles/64/Does-God-Exist.aspx, accessed 11-20-11, mss)

C. S. Lewis once remarked that God is not the sort of thing one can be moderately interested in. After all, if God does not exist, there's no reason to be interested in God at all. On the other hand, if God does exist, then this is of paramount interest, and our **ultimate concern** ought to be how to be **properly related** to this being upon whom we depend moment by moment for our very existence. So people who shrug their shoulders and say, "What difference does it make if God exists?" merely show that they haven't yet thought very deeply about this problem. Even atheist philosophers like Sartre and Camus who have thought very seriously about this problem admit that the existence of God makes a tremendous difference for man. Let me mention just three reasons why it makes a big difference whether God exists. 1. If God does not exist, **life is** ultimately **meaningless**. If your life is doomed to end in death, then ultimately it does not matter how you live. In the end it makes no ultimate difference whether you existed or not. Sure, your life might have a relative significance in that you influenced others or affected the course of history. But **ultimately [hu]mankind is doomed to perish in the heat death of the universe.** Ultimately it makes no difference who you are or what you do. Your life is inconsequential. Thus, the contributions of the scientist to the advance of human knowledge, the research of the doctor to alleviate pain and suffering, the efforts of the diplomat to secure peace in the world, the sacrifices of good people everywhere to better the lot of the human race ultimately all these come to nothing. Thus, if atheism is true, life is ultimately meaningless. 2. If God does not exist, then we must ultimately live without hope. If there is no God, then there is ultimately no hope for deliverance from the shortcomings of our finite existence. For example, there is no hope for deliverance from evil. Although many people ask how God could create a world involving so much evil, by far most of the suffering in the world is due to man's own inhumanity to man. The horror of two world wars during the last century effectively destroyed the 19th century's naive optimism about human progress. If God does not exist, then we are locked without hope in a world filled with gratuitous and unredeemed suffering, and there is no hope for deliverance from evil. Or again, if there is no God, there is no hope of deliverance from aging, disease, and death. Although it may be hard for you as university students to contemplate, the sober fact is that unless you die young, someday you you yourselfwill be an old man or an old woman, fighting a losing battle with aging, struggling against the inevitable advance of deterioration, disease, perhaps senility. And finally and inevitably you will die. There is no afterlife beyond the grave. Atheism is thus a philosophy without hope. 3. On the other hand, if God does exist, then not only is there meaning and hope, but there is also the possibility of coming to know God and His love personally. Think of it! That the **infinite God** should love you and want to be your personal friend! This **would be the highest status a human being could enjoy**! Clearly, if God exists, it makes not only a tremendous difference for mankind in general, but it could make a life-changing difference for you as well. Now admittedly none of this shows that God exists. But does show that it makes a tremendous difference whether God exists. Therefore, even if the evidence for and against the existence of God were absolutely equal, the rational thing to do, I think, is to believe in Him. That is to say, it seems to me positively irrational when the evidence is equal to prefer death, futility, and despair over hope, meaningfulness and happiness.

[Matt note: gender-paraphrased]

# 4

## Nuclear production locks in production-ism through obsession with finance, competitiveness and technological solutions

**Maciejewska et al., Wroclaw Sociology and Faculty of Social Sciences institute, 2011**

(Malgorzata, “Lack of power or lack of democracy: the case of the projected nuclear power plant in Poland”, Economic and Environmental Studies, 11.3, project muse, ldg)

The mainstream discourse on nuclear power rarely takes up the question of how the global energy industry is organized. In the modern economy the production of energy around the world, which is supposed to be a kind of public good and to guarantee sustainable development, is planned and arranged under free market conditions. As a part of the global chain of extraction, production and trading, it is subordinated to the neoliberal logic on terms of which the society and economy is governed as a business enterprise with the logic of maximum interest and minimum loss. This imposes on different actors (from the international corporations to individual households) the discipline of competitiveness and profitability, resulting in the growth of existing inequalities as ‘the invisible hand’ of the free market economy legitimizes those subjects which are already in power. The modern global economy is based on irrational production and social inequalities where one can observe the processes of work intensification and the cheapening of labor. The markets are dominated by the unproductive virtual economy (See Peterson, 2002) where the major players are the financial institutions which, by means of sophisticated financial tools, buy and sell virtual products (currencies, stocks, insurances, debts and its derivatives). In effect, the major actors in the capitalist economy are the international investors who have the capability of financial liquidity, and operate with those sophisticated financial tools on the global stock market. Even when they lose those capacities because of indebtedness, the states and international organizations seem often to be willing to repair the damage by transferring the taxes paid by citizens. (This is actually happening now, during the financial crisis, when southern and western European countries are subjected to shock therapy under which governments introduce austerity measures.) The praxis of nuclear power producers and the discourse which legitimizes it is therefore reduced to one goal – increasing financial revenues. The Polish plan to build the atomic power plant seems to be another element of the competitiveness strategy. In the authorities’ mind set it could put Poland into the position of more a competitive, more dynamic economy, as expected by the European Union and international organizations such as the International Monetary Fund or the World Bank. The welfare of Poland’s or Niger’s society does not fit into that picture. The nuclear establishment does not take into account the most important aspect of sustainable development: the overall reduction of energy consumption and therefore of energy production. Such a policy could bring a wide range of profits to the societies, the ecosystem, as well as the economy. On the contrary, the increase of power production and power use is one of the core concepts of pro-atomic discourse. This dogmatic belief draws the ideological line indicated at the beginning: the question of energy use and the ideas for solving this problem are seen only as a matter of technological challenges and the amount of financial and material means which have to be invested in them, but not as an effort to re-organize and restructure the modern economy.

## Unmitigated market competition makes extinction inevitable and turns case

**Wise et al., Universidad Autónoma de Zacatecas development studies professor, 2010**

 Raúl, “Reframing the debate on migration, development and human rights: fundamental elements”, October, [www.migracionydesarrollo.org](http://www.migracionydesarrollo.org), DOA: 10-13-12, ldg)

At the end of the first decade of the 21st century, a general crisis centered in the United States affected the global capitalist system on several levels (Márquez, 2009 and 2010). The consequences have been varied: Financial. The overflowing of financial capital leads to speculative bubbles that affect the socioeconomic framework and result in global economic depressions. Speculative bubbles involve the bidding up of market prices of such commodities as real estate or electronic innovations far beyond their real value, leading inevitable to a subsequent slump (Foster and Magdof, 2009; Bello, 2006). Overproduction. Overproduction crises emerge when the surplus capital in the global economy is not channeled into production processes due to a fall in profit margins and a slump in effective demand, the latter mainly a consequence of wage containment across all sectors of the population (Bello, 2006). Environmental. Environmental degradation, climate change and a predatory approach to natural resources contribute to the destruction of the latter, along with a fundamental undermining of the material bases for production and human reproduction (Fola- dori and Pierri, 2005; Hinkelammert and Mora, 2008). Social. Growing social inequalities, the dismantling of the welfare state and dwindling means of subsistence accentuate problems such as poverty, unemployment, violence, insecurity and labor precariousness, increasing the pressure to emigrate (Harvey, 2007; Schierup, Hansen and Castles, 2006). The crisis raises questions about the prevailing model of globalization and, in a deeper sense, the systemic global order, which currently undermines our main sources of wealth—labor and nature—and overexploits them to the extent that civilization itself is at risk. The responses to the crisis by the governments of developed countries and international agencies promoting globalization have been short-sighted and exclusivist. Instead of addressing the root causes of the crisis, they have implemented limited strategies that seek to rescue financial and manufacturing corporations facing bankruptcy. In addition, government policies of labor flexibilization and fiscal adjustment have affected the living and working conditions of most of the population. These measures are desperate attempts to prolong the privileges of ruling elites at the risk of imminent and increasingly severe crises. In these conditions, migrants have been made into scapegoats, leading to repressive anti- immigrant legislation and policies (Massey and Sánchez, 2006). A significant number of jobs have been lost while the conditions of remaining jobs deteriorate and deportations increase. Migrants’ living standards have drastically deteriorated but, contrary to expectations, there have been neither massive return flows nor a collapse in remittances, though there is evidence that migrant worker flows have indeed diminished.

## The alternative is to embrace commons instead of enclosures

## Discourse of the commons solves-creates space to challenge neoliberalism

**De Angelis, East London political economy professor, 2003**

(Massimo, “Reflections on alternatives, commons and communities”, Winter, <http://www.commoner.org.uk/deangelis06.pdf>, DOA: 7-2-12, ldg)

This movement has posed the question of a plurality of “alternatives” to the social processes and arrangements that produce the horrors of modern global capital. In order to take the many calls for and practices of alternatives seriously, we have to make them relevant to the real people at the fringe or outside the movement. In other words, we want to move from movement to society not so much by persuading people to “join” our movement, but through a language and a political practice that by tracing the connections between diverse practices attempts to dissolve the distinctions between inside and outside the movement, i.e., actually moves ‘from movement to society’. To make the possibility of a new world that contains many worlds an actuality, we have to be able to shape our own discourse in such a way as to echo the needs and aspirations coming from below. We have to give coherence to their plurality, without imposing a model or reiterating dead ideologies. We need a discourse that helps to articulate the many alternatives that spring out of the points of crises of neoliberal capital, which seriously threaten to dispossess people of their livelihood and impose on them new or more intensified commodified patterns of life. We need a discourse that builds on the plurality of the many concrete struggles and their methods and help us to articulate a vision – not a plan – of the whole. Then we can better evaluate what are the global implications of our local struggles, as well as the local implications of global struggles for the building of a world that contains many worlds. But most of all, we need a discourse that recognizes the power we have to shape alternatives, at every level in society, that sets out from the simple fact that, contrarily to common belief, alternatives do exist, are everywhere and plural. To clarify, I think that every social node, that is every individual or network of individuals is a bearer of alternatives. This is evident not only when struggles erupt in any of the waged or unwaged local and trans-local nodes of social production. We just need to look around in the relative normality of daily routines to see that every social node “knows” of different ways to do things within its life-world and sphere of action longs for a different space in which things can be done in different ways. Each social node expresses needs and aspirations that are the basis of alternatives. For example: the alternative to working 10 hours a day is working 6; the alternative to poverty is access to the means of existence; the alternative to indignity is dignity; the alternative to building that dam and uprooting communities is not building that dam and leaving communities where they are; the alternative to tomatoes going rotten while transported on the back of an old woman for 20 miles is not GM tomatoes that do not rot, but access to land near home, or a home, or a road and a truck. Since every social node is aware of a spectrum of alternatives, the problem is simply how to make these alternatives actual? What resources are needed? How to coordinate alternatives in such a way that they are not pitted against each other as is the case of the competitive markets’ understanding of alternatives? How to solve the many existing problems without relying on the alienating coordinating mechanism of the market and creating instead social relations of mutual enrichment, dignity, and respect? These are I believe the bottom line questions on which a new political discourse must be based. Once we acknowledge the existence of the galaxy of alternatives as they emerge from concrete needs and aspirations, we can ground today’s new political discourse in the thinking and practice of the actualization and the coordination of alternatives, so as each social node and each individual within it has the power to decide and take control over their lives. It is this actualization and this coordination that rescues existing alternatives from the cloud of their invisibility, because alternatives, as with any human product, are social products, and they need to be recognized and validated socially. Our political projects must push their way through beyond the existing forms of coordination, beyond the visible fist of the state, beyond the invisible hand of competitive markets, and beyond the hard realities of their interconnections that express themselves in today forms of neoliberal governance, promoting cooperation through competition and community through disempowerment. As I will argue, this new political discourse is based on the project of defending and extending the space of commons, at the same time building and strengthening communities through the social fields.

# Solvency

## The DOD is modernizing to focus on Asia now --- budget cuts threaten to undermine the pivot

**Chaffin, National Bureau of Asian Research intern, 2012**

(Greg, “An Interview with Thomas G. Mahnken”, 7-30, <http://www.nbr.org/research/activity.aspx?id=265>, DOA: 9-27-12, ldg)

The current debate over U.S. defense spending and calls to cut the U.S. defense budget undercut the Obama administration’s announced pivot to or rebalancing toward Asia. This was apparent in reactions in the region to Secretary of Defense Leon Panetta’s speech at the Shangri-La Dialogue in Singapore. The rise of China and Chinese military modernization, combined with constraints on the U.S. defense budget, mean that in coming years the United States is likely to face an increase in both the operational risk to its forces and the strategic risk to U.S. interests. It will take greater effort to protect our historic interests in the region. Failure to adjust the structure and posture of U.S. forces in the Asia-Pacific threatens to open up a widening gap between our capabilities and commitments. However, if complacency in the face of growing threats would be unwarranted, so too would be despair. There is no need to accept a narrower conception of the American role in the world. The United States has it in its power to field forces that will safeguard U.S. interests at an acceptable level of risk. What is required first and foremost is the political will to explain not just the costs but also the benefits of a vigorous U.S. role in Asia, to seek adequate funding for an enhanced U.S. presence in the region, and to work with U.S. allies and friends to make that posture a reality.

[Note-Thomas Mahnken, currently Jerome E. Levy Chair of Economic Geography and National Security at the U.S. Naval War College]

## DOD purchasing inflates the cost of energy—cause tradeoffs with key capabilities undermining the military and independently takes out solvency- makes prices not competitive

**Spencer, Heritage Economic Policy Studies nuclear energy research fellow, 2011**

(Jack, “Capability, Not Politics, Should Drive DOD Energy Research” 6-22, [www.heritage.org/research/reports/2011/06/capability-not-politics-should-drive-dod-energy-research](http://www.heritage.org/research/reports/2011/06/capability-not-politics-should-drive-dod-energy-research), DOA: 9-26-12, ldg)

Do not establish long-term contracts based on price floors. Many purveyors of expensive energy want the Pentagon to engage in long term contracts with energy suppliers that set price floors.This has two negative impacts. First, it would cost the military more to fuel its operations. Setting price floors signals to the market that certain fuel producers do not have to compete. Second, prices would never fall below the floor even if production costs allow for lower pricing or superior alternatives exist at lower prices. The Pentagon is a massive fuel consumer that can help fuel suppliers make substantial profits. But fuel suppliers should have to compete for the Pentagon’s business. Long-term contracts should be used to guarantee that the Pentagon has the supplies it needs, not to provide a guaranteed market for expensive fuel producers. Establish a capabilities-based determination on the best way to ensure secure domestic base energy supplies. An over-reliance on the U.S. electricity grid is emerging as a concern for some military planners. An attack on the civilian grid could leave domestic military bases without power. While this fear may be legitimate, by itself it does not justify alternative energy investments. End renewable energy mandates. According to Section 2911(e) of Title 10 of the United States Code, the DOD is obligated to generate 25 percent of its electricity using renewable sources by 2025. This mandate should be ended immediately. Such mandates will cause the Pentagon to expend an increasing amount of its resources on renewable energy rather than on increasing capability. Plus, mandates undermine the incentive for renewable energy producers to provide competitively priced products, thus actually impeding the ultimate availability of oil alternatives. Do not mandate more expensive alternatives to oil. Oil products may be expensive, but they are the least expensive option currently available. Forcing the military to purchase more expensive alternatives would leave fewer resources for training, modernization, and recapitalization, resulting is a less capable military.

## Pivot is key to contain China`s rise and prevent Asian instability.

**Colby, Center for Naval Analyses research analyst, 2011**

(Elbridge, “Why the U.S. Needs its Liberal Empire,” 8-10, <http://thediplomat.com/2011/08/10/why-us-needs-its-liberal-empire>, DOA: 9-27-12, ldg)

 But, in part due to poor decision-making in Washington, this system is under strain, particularly in East Asia, where the security situation has become tenser even as the region continues to become the centre of the global economy. A nuclear North Korea’s violent behaviour threatens South Korea and Japan, as well as US forces on the peninsula; Pyongyang’s development of a road mobile Intercontinental Ballistic Missile, moreover, brings into sight the day when North Korea could threaten the United States itself with nuclear attack, a prospect that will further imperil stability in the region. More broadly, the rise of China – and especially its rapid and opaque military build-up – combined with its increasing assertiveness in regional disputes is troubling to the United States and its allies and partners across the region. Particularly relevant to the US military presence in the western Pacific is the development of Beijing’s anti-access and area denial capabilities, including the DF-21D anti-ship ballistic missile, more capable anti-ship cruise missiles, attack submarines, attack aircraft, smart mines, torpedoes, and other assets. While Beijing remains a constructive contributor on a range of matters, these capabilities will give China the growing power to deny the United States the ability to operate effectively in the western Pacific, and thus the potential to undermine the US-guaranteed security substructure that has defined littoral East Asia since World War II. Even if China says today it won’t exploit this growing capability, who can tell what tomorrow or the next day will bring? Naturally, US efforts to build up forces in the western Pacific in response to future Chinese force improvements must be coupled with efforts to engage Beijing as a responsible stakeholder; indeed, a strengthened but appropriately restrained military posture will enable rather than detract from such engagement. In short, the United States must increase its involvement in East Asia rather than decrease it. Simply maintaining the military balance in the western Pacific will, however, involve substantial investments to improve US capabilities. It will also require augmented contributions to the common defence by US allies that have long enjoyed low defence budgets under the US security umbrella. This won’t be cheap, for these requirements can’t be met simply by incremental additions to the existing posture, but will have to include advances in air, naval, space, cyber, and other expensive high-tech capabilities. Yet such efforts are vital, for East Asia represents the economic future, and its strategic developments will determine which country or countries set the international rules that shape that economic future. Conversely, US interventions in the Middle East and, to a lesser degree, in south-eastern Europe have been driven by far more ambitious and aspirational conceptions of the national interest, encompassing the proposition that failing or illiberally governed peripheral states can contribute to an instability that nurtures terrorism and impedes economic growth. Regardless of whether this proposition is true, the effort is rightly seen by the new political tide not to be worth the benefits gained. Moreover, the United States can scale (and has scaled) back nation-building plans in Iraq, Afghanistan, and the Balkans without undermining its vital interests in ensuring the free flow of oil and in preventing terrorism. The lesson to be drawn from recent years is not, then, that the United States should scale back or shun overseas commitments as such, but rather that we must be more discriminating in making and acting upon them. A total US unwillingness to intervene would pull the rug out from under the US-led structure, leaving the international system prey to disorder at the least, and at worst to chaos or dominance by others who could not be counted on to look out for US interests. We need to focus on making the right interventions, not forswearing them completely. In practice, this means a more substantial focus on East Asia and the serious security challenges there, and less emphasis on the Middle East.

## SMR procurement sends a global signal of impending U.S. military aggression---causes resentment against U.S. unilateralism

**Smith, CSIS William E. Simon Chair in Political Economy research assistant, 2011**

(Terrence, “An Idea I Can Do Without: “Small Nuclear Reactors for Military Installations”, 2-16, <http://csis.org/blog/idea-i-can-do-without-small-nuclear-reactors-military-installations>, DOA: 9-27-12, ldg)

The report repeatedly emphasizes the point that “DOD’s “’first mover’ pursuit of small reactors could have a profound influence on the development of the industry,” and cautions that “if DOD does not support the U.S. small reactor industry, the industry could be dominated by foreign companies.” The U.S. nonproliferation agenda, if there is one, stands in opposition to this line of thinking. Pursuing a nuclear technology out of the fear that others will get it (or have it), is what fueled the Cold War and much of the proliferation we have seen and are seeing today. It is a mentality I think we should avoid. I do not mean to say this report ignores the risks. In fact they explicitly say, “We acknowledge that there are many uncertainties and risks associated with these reactors.” For example it says, 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. The report also points out that “from a financial perspective, small reactors represent substantial losses in economies of scale.” These issues, which were briefly mentioned, hardly seem like small potatoes. The reports answer to the issues raised: “making reliable projections about these reactors’ economic and technical performance while they are still on paper is a significant challenge,” and “Nevertheless, no issue involving nuclear energy is simple.” On the other hand, the report argues, “failing to pursue these technologies raises its own set of risks for DOD.” “First, small reactors may fail to be commercialized in the United States; second, the designs that get locked in by the private market may not be optimal for DOD’s needs; and third, expertise on small reactors may become concentrated in foreign countries.” Yes these are important issue for a business stand, but I don’t find them to be the primary concern. The reactors are purely for energy purposes, but in a world that seems to be growing tired of U.S. military intervention, the idea of ensuring our ability to do so through the proliferation of mobile nuclear reactors will hardly quell any hostile sentiment. In addition, it can only add fire to the “nuclear = good” flame. So, while even under best case scenario, the reactors are completely proliferation proof and pose no direct threat to the nonproliferation cause (ignoring the spreading of nuclear tech and knowledge in general), I have a tough time seeing how it helps. The report concludes that the DoD “should seriously consider taking a leadership role on small reactors.” Since the 1970s, the report says, “in the United States, only the military has overcome the considerable barriers to building nuclear reactors. This will probably be the case with small reactors as well.” For now, the plans for small nuclear reactors are “unfortunately,” for the most part, “caught between the drawing board and production.” My point is, maybe that is where they should stay.

## The U.S. is pursuing a grand strategy of multilateral legitimacy now---perception of a swing back toward unilateral military primacy collapses heg

**Fujimoto, US Army Lt. Colonel, 2012**

(Kevin, “Preserving U.S. National Security Interests Through a Liberal World Construct”, 1-11, <http://www.strategicstudiesinstitute.army.mil/index.cfm/articles/Preserving-US-National-Security-Interests-Liberal-World-Construct/2012/1/11>, DOA: 9-27-12, ldg)

The emergence of peer competitors, not terrorism, presents the greatest long-term threat to our national security. Over the past decade, while the United States concentrated its geopolitical focus on fighting two land wars in Iraq and Afghanistan, China has quietly begun implementing a strategy to emerge as the dominant imperial power within Southeast Asia and the Indian Ocean. Within the next 2 decades, China will likely replace the United States as the Asia-Pacific regional hegemonic power, if not replace us as the global superpower.1 Although China presents its rise as peaceful and non-hegemonic, its construction of naval bases in neighboring countries and military expansion in the region contradict that argument. With a credible threat to its leading position in a unipolar global order, the United States should adopt a grand strategy of “investment,” building legitimacy and capacity in the very institutions that will protect our interests in a liberal global construct of the future when we are no longer the dominant imperial power. Similar to the Clinton era's grand strategy of “enlargement,”2 investment supports a world order predicated upon a system of basic rules and principles, however, it differs in that the United States should concentrate on the institutions (i.e., United Nations, World Trade Organization, ASEAN, alliances, etc.) that support a world order, as opposed to expanding democracy as a system of governance for other sovereign nations. Despite its claims of a benevolent expansion, China is already executing a strategy of expansion similar to that of Imperial Japan's Manchukuo policy during the 1930s.3 This three-part strategy involves: “(i) (providing) significant investments in economic infrastructure for extracting natural resources; (ii) (conducting) military interventions (to) protect economic interests; and, (iii) . . . (annexing) via installation of puppet governments.”4 China has already solidified its control over neighboring North Korea and Burma, and has similarly begun more ambitious engagements in Africa and Central Asia where it seeks to expand its frontier.5 Noted political scientist Samuel P. Huntington provides further analysis of the motives behind China's imperial aspirations. He contends that “China (has) historically conceived itself as encompassing a “‘Sinic Zone'. . . (with) two goals: to become the champion of Chinese culture . . . and to resume its historical position, which it lost in the nineteenth century, as the hegemonic power in East Asia.”6 Furthermore, China holds one quarter of the world's population, and rapid economic growth will increase its demand for natural resources from outside its borders as its people seek a standard of living comparable to that of Western civilization. The rise of peer competitors has historically resulted in regional instability and one should compare “the emergence of China to the rise of. . . Germany as the dominant power in Europe in the late nineteenth century.”7 Furthermore, the rise of another peer competitor on the level of the Soviet Union of the Cold War ultimately threatens U.S. global influence, challenging its concepts of human rights, liberalism, and democracy; as well as its ability to co-opt other nations to accept them.8 This decline in influence, while initially limited to the Asia-Pacific region, threatens to result in significant conflict if it ultimately leads to a paradigm shift in the ideas and principles that govern the existing world order. A grand strategy of investment to address the threat of China requires investing in institutions, addressing ungoverned states, and building legitimacy through multilateralism. The United States must build capacity in the existing institutions and alliances accepted globally as legitimate representative bodies of the world's governments. For true legitimacy, the United States must support these institutions, not only when convenient, in order to avoid the appearance of unilateralism, which would ultimately undermine the very organizations upon whom it will rely when it is no longer the global hegemon. The United States must also address ungoverned states, not only as breeding grounds for terrorism, but as conflicts that threaten to spread into regional instability, thereby drawing in superpowers with competing interests. Huntington proposes that the greatest source of conflict will come from what he defines as one “core” nation's involvement in a conflict between another core nation and a minor state within its immediate sphere of influence.9 For example, regional instability in South Asia10 threatens to involve combatants from the United States, India, China, and the surrounding nations. Appropriately, the United States, as a global power, must apply all elements of its national power now to address the problem of weak and failing states, which threaten to serve as the principal catalysts of future global conflicts.11 Admittedly, the application of American power in the internal affairs of a sovereign nation raises issues. Experts have posed the question of whether the United States should act as the world's enforcer of stability, imposing its concepts of human rights on other states. In response to this concern, The International Commission on Intervention and State Sovereignty authored a study titled, The Responsibility to Protect,12 calling for revisions to the understanding of sovereignty within the United Nations (UN) charter. This commission places the responsibility to protect peoples of sovereign nations on both the state itself and, more importantly, on the international community.13 If approved, this revision will establish a precedent whereby the United States has not only the authority and responsibility to act within the internal affairs of a repressive government, but does so with global legitimacy if done under the auspices of a UN mandate. Any effort to legitimize and support a liberal world construct requires the United States to adopt a multilateral doctrine which avoids the precepts of the previous administration: “preemptive war, democratization, and U.S. primacy of unilateralism,”14 which have resulted in the alienation of former allies worldwide. Predominantly Muslim nations, whose citizens had previously looked to the United States as an example of representative governance, viewed the Iraq invasion as the seminal dividing action between the Western and the Islamic world. Appropriately, any future American interventions into the internal affairs of another sovereign nation must first seek to establish consensus by gaining the approval of a body representing global opinion, and must reject military unilateralism as a threat to that governing body's legitimacy. Despite the long-standing U.S. tradition of a liberal foreign policy since the start of the Cold War, the famous liberal leviathan, John Ikenberry, argues that “the post-9/11 doctrine of national security strategy . . . has been based on . . . American global dominance, the preventative use of force, coalitions of the willing, and the struggle between liberty and evil.”15 American foreign policy has misguidedly focused on spreading democracy, as opposed to building a liberal international order based on universally accepted principles that actually set the conditions for individual nation states to select their own system of governance. Anne-Marie Slaughter, the former Dean of the Woodrow Wilson School of Public and International Affairs, argues that true Wilsonian idealists “support liberal democracy, but reject the possibility of democratizing peoples . . .”16 and reject military primacy in favor of supporting a rules-based system of order. Investment in a liberal world order would also set the conditions for the United States to garner support from noncommitted regional powers (i.e., Russia, India, Japan, etc.), or “swing civilizations,” in countering China's increasing hegemonic influence.17 These states reside within close proximity to the Indian Ocean, which will likely emerge as the geopolitical focus of the American foreign policy during the 21st century, and appropriately have the ability to offset China's imperial dominance in the region.18 Critics of a liberal world construct argue that idealism is not necessary, based on the assumption that nations that trade together will not go to war with each other.19 In response, foreign affairs columnist Thomas L. Friedman rebukes their arguments, acknowledging the predicate of commercial interdependence as a factor only in the decision to go to war, and argues that while globalization is creating a new international order, differences between civilizations still create friction that may overcome all other factors and lead to conflict.20 Detractors also warn that as China grows in power, it will no longer observe “the basic rules and principles of a liberal international order,” which largely result from Western concepts of foreign relations. Ikenberry addresses this risk, citing that China's leaders already recognize that they will gain more authority within the existing liberal order, as opposed to contesting it. China's leaders “want the protection and rights that come from the international order's . . . defense of sovereignty,”21 from which they have benefitted during their recent history of economic growth and international expansion. Even if China executes a peaceful rise and the United States overestimates a Sinic threat to its national security interest, the emergence of a new imperial power will challenge American leadership in the Indian Ocean and Asia-Pacific region. That being said, it is more likely that China, as evidenced by its military and economic expansion, will displace the United States as the regional hegemonic power. Recognizing this threat now, the United States must prepare for the eventual transition and immediately begin building the legitimacy and support of a system of rules that will protect its interests later when we are no longer the world's only superpower.

## Plan results in utility companies credit downgrade-takes out solvency.

**Texas Institute, 11**

(“Impact of Nuclear Power Projects on Credit Ratings and Creditor Recoveries Following Default of Investor Owned Utilities Sponsoring Nuclear Projects”, Texas Institute Research Study, September 1, 2011, 8/16/12, atl)

A credit rating is a formal opinion given by a rating agency of the potential default risk faced by investing in a particular issue of debt securities. Moody's is one of the three general purpose nationally recognized statistical rating organizations in the U.S. (See Table 7 for Moody's definition of rating scale). The rating process begins when a rating agency receives a formal request from an entity planning to issue a bond. The request for a rating is made because without one, it would be difficult for the entity to market a bond issue to the public. Once a credit rating is assigned, the rating agency monitors the credit quality of the issuer and can reassign a different credit rating to the bond. An "upgrade" occurs when there is an improvement in the credit quality of an issue; a "downgrade" occurs then there is deterioration in the credit quality of an issue. A downgrade of an issue or issuer may increase the credit spread and result in a decline in the market price of the issuer's bonds. Conclusion From a credit perspective, the risks of building new nuclear plants are notable, entailing significantly higher operating risk, with very high capital costs, and vulnerability to potential shifts in energy policy. Historically, 69% nuclear power project sponsoring utilities suffered rating downgrades while building these facilities and 52% of the nuclear power sponsors received their lowest rating during the construction period. Technical Summary and Charts As shown in Exhibit 1, 69% of investor-owned utilities suffered rating downgrades while constructing nuclear power plants. Of 52 utilities that completed nuclear plants (operating and shutdown, but not including test sites) during their construction period, seven utilities received rating upgrades, nine utilities were unchanged and the other 36 suffered downgrades. The issuers on average fell 3 credit rating notches and the issuer with the greatest rating change, Long Island Lighting Company, fell 12 notches, from Aa2 in 1972 to B2 in 1984. All of these ratings were evaluated on Moody’s assigned issuer rating, which is the issuer’s senior long term debt rating using the update algorithm. We define a utility’s nuclear plant construction period as from the date a construction permit was issued to the date of commercial operation. We examined the data from 1960 to February 2011 and discovered that half (52%) of the nuclear power sponsors received their lowest rating during their nuclear plant construction period. The average length of time needed to build a nuclear power facility is 104.6 months, which is approximately 17% of the time period reviewed. There were 46 utilities that eventually canceled at least one of their planned nuclear reactors. Eight of those utilities canceled their only planned reactor. That is, these 8 utilities merely announced plans to build nuclear plants but did not receive a construction license to begin any nuclear plant construction. The credit rating trend for these 8 utilities is normal, although the small sample size prevents statistically meaningful conclusions. Historical data suggests that nuclear power announcements did not necessarily bring negative rating impact on sponsors, but the actual construction activities did increase ratings pressure on sponsors. This is consistent with the hypothesis that very large capital expenditures required for nuclear power plant construction combined with the uncertainty associated with the last nuclear plant construction cycle would materially increase the sponsor’s operating risk in the view of rating agencies (See rating criteria for rating agencies and banks in Table 5 of Appendix). A further specific examination on Moody's rating methodology of regulated electric utilities and unregulated electric utilities (Table 6 of Appendix) clearly illustrates that although nuclear power construction may enjoy some political and regulatory support, the issuer's rating would be seriously affected by a number of other factors, especially the financial metrics. The multi-billion size of the investments and sizeable sunk costs could undoubtedly introduce material financial distress for almost any issuer. These impacts could overcome regulatory support in the form of rate of return regulation and service area monopolies, as well as tax incentives and other financial support available as a result of the job creation and tax base expansion likely to result from new nuclear plant construction.

## Military personal don’t have the knowledge

**Parthemore et al., CNAS Bacevich Fellow, 2010**

(Christine, “Broadening Horizons: Climate Change and the U.S. Armed Forces”, April, <http://www.cnas.org/files/documents/publications/CNAS_Broadening%20Horizons_Carmen%20Parthemore%20Rogers.pdf>, DOA: 9-23-12, ldg)

Many serious complications must be weighed as well. Military base personnel often do not have the necessary training in nuclear reactor management, oversight and regulatory credentials. Nuclear reactors would necessitate additional qualified personnel and improved physical security requirements to meet the 24/7 operations needs. As with siting for all energy production, local public resistance could be problematic. When considering the impact of a reactor casualty, the resulting impact on the operational mission effectiveness of the tenant commands on the base must also be considered so as to avoid a single point vulnerability that disables all military operations on site. And while many private companies are touting new designs for small reactors that would work well in this capacity, the technology may still be years away from fully meeting technical requirements and federal regulatory standards.13 Proliferation considerations would also need to be part of any adjudication of what types of reactors are most suitable for these purposes.

## 1. Fuel fabrication-either makes it not competitive or leads to proliferation

**Katusa, Casey Research Chief Investment Strategist , 2012**

(Martin, “The Thing About Thorium: Why The Better Nuclear Fuel May Not Get A Chance”, 2-16, <http://www.forbes.com/sites/energysource/2012/02/16/the-thing-about-thorium-why-the-better-nuclear-fuel-may-not-get-a-chance/2/>, DOA: 10-12-12, ldg)

Well, maybe quite a bit of support. One of the biggest challenges in developing a thorium reactor is finding a way to fabricate the fuel economically.

 Making thorium dioxide is expensive, in part because its melting point is the highest of all oxides, at 3,300° C. The options for generating the barrage of neutrons needed to kick-start the reaction regularly come down to uranium or plutonium, bringing at least part of the problem full circle.

## 2. No interest in thorium now – high risk and cheap natural gas discourage

**Yurman, energy consultant and blogger, 8-24-12**

(Dan, “LWR SMRs have fuel advantages,” http://theenergycollective.com/dan-yurman/106276/lwr-smrs-have-fuel-advantages?utm\_source=feedburnerandutm\_medium=emailandutm\_campaign=The+Energy+Collective+%28all+posts%29, DOA: 10-13-12, ldg)

The standard answer to the question of why hasn’t anyone built a thorium fuel SMR is that no customer has expressed an interest in buying one. Digging deeper into that question, you come up with the issue of competitive advantage. What is in it for a customer to go down the path of an entirely different fuel type? Consider the fact that it would need a completely new fuel cycle, with billions spent on facilities to make the fuel that would be needed to run a fleet of thorium fueled reactors. No one is going to build just one. Then there is the question of whether a utility could have any certainty that it could operate them at a profit. For now the risks and the unknowns are too great for any commercial utility to get involved with anything other than uranium fuel. Any company or country developing a thorium fueled reactor has to address the issues of cost competitiveness as a very high priority. Advocates of thorium reactors have for the most part talked about technology differentiation and also nonproliferation advantages. Unless commercial utilities see a compelling business case for them, e.g. lower total cost of operations v. $6/Mbtu natural gas, there are likely to be few takers in next few years. # # #

## 3. Thorium tech isn’t ready

**Howarth, UK National Nuclear Laboratory managing director, 2010**

(Paul, “The Thorium Fuel Cycle”, August, <http://www.nnl.co.uk/media/27860/nnl__1314092891_thorium_cycle_position_paper.pdf>, DOA: 9-26-12, ldg)

In the event of thorium fuel cycles being adopted commercially in existing LWRs, the technology can be considered to be well understood, but not fully demonstrated. The historic experience in the Shippingport PWR cannot now be considered adequate to cover modern operating regimes and discharge burnups. Demonstration of thorium/U-233 fuels in commercial LWRs will therefore demand small scale testing in research reactors, followed by large scale tests in commercial reactors. Based on NNL’s knowledge and experience of introducing new fuels into modern reactors, it is estimated that this is likely to take 10 to 15 years even with a concerted R&D effort and investment before the thorium fuel cycle could be established in current reactors and much longer for any future reactor systems. Therefore it is not envisaged that thorium fuel in LWRs will be established in the next decade, but could be feasible in the following ten years if the market conditions are conducive.

## 4. No solvency-multiple barriers to adoption

**Rees, Guardian, 2011**

(Eifon, “Don't believe the spin on thorium being a greener nuclear option”, 6-23, <http://www.guardian.co.uk/environment/2011/jun/23/thorium-nuclear-uranium>, DOA: 9-27-12, ldg)

There is a significant sticking point to the promotion of thorium as the 'great green hope' of clean energy production: it remains unproven on a commercial scale. While it has been around since the 1950s (and an experimental 10MW LFTR did run for five years during the 1960s at Oak Ridge National Laboratory in the US, though using uranium and plutonium as fuel) it is still a next generation nuclear technology – theoretical. China did announce this year that it intended to develop a thorium MSR, but nuclear radiologist Peter Karamoskos, of the International Campaign to Abolish Nuclear Weapons (ICAN), says the world shouldn't hold its breath. 'Without exception, [thorium reactors] have never been commercially viable, nor do any of the intended new designs even remotely seem to be viable. Like all nuclear power production they rely on extensive taxpayer subsidies; the only difference is that with thorium and other breeder reactors these are of an order of magnitude greater, which is why no government has ever continued their funding.' China's development will persist until it experiences the ongoing major technical hurdles the rest of the nuclear club have discovered, he says. Others see thorium as a smokescreen to perpetuate the status quo: the world's only operating thorium reactor – India's Kakrapar-1 – is actually a converted PWR, for example. 'This could be seen to excuse the continued use of PWRs until thorium is [widely] available,' points out Peter Rowberry of No Money for Nuclear (NM4N) and Communities Against Nuclear Expansion (CANE). In his reading, thorium is merely a way of deflecting attention and criticism from the dangers of the uranium fuel cycle and excusing the pumping of more money into the industry. And yet the nuclear industry itself is also sceptical, with none of the big players backing what should be – in PR terms and in a post-Fukushima world – its radioactive holy grail: safe reactors producing more energy for less and cheaper fuel. In fact, a 2010 National Nuclear Laboratory (NNL) report (PDF)concluded the thorium fuel cycle 'does not currently have a role to play in the UK context [and] is likely to have only a limited role internationally for some years ahead' – in short, it concluded, the claims for thorium were 'overstated'. Proponents counter that the NNL paper fails to address the question of MSR technology, evidence of its bias towards an industry wedded to PWRs. Reliant on diverse uranium/plutonium revenue streams – fuel packages and fuel reprocessing, for example – the nuclear energy giants will never give thorium a fair hearing, they say. But even were its commercial viability established, given 2010's soaring greenhouse gas levels, thorium is one magic bullet that is years off target. Those who support renewables say they will have come so far in cost and efficiency terms by the time the technology is perfected and upscaled that thorium reactors will already be uneconomic. Indeed, if renewables had a fraction of nuclear's current subsidies they could already be light years ahead. All other issues aside, thorium is still nuclear energy, say environmentalists, its reactors disgorging the same toxic byproducts and fissile waste with the same millennial half-lives. Oliver Tickell, author of Kyoto2, says the fission materials produced from thorium are of a different spectrum to those from uranium-235, but 'include many dangerous-to-health alpha and beta emitters'. Tickell says thorium reactors would not reduce the volume of waste from uranium reactors. 'It will create a whole new volume of radioactive waste from previously radio-inert thorium, on top of the waste from uranium reactors. Looked at in these terms, it's a way of multiplying the volume of radioactive waste humanity can create several times over.' Putative waste benefits – such as the impressive claims made by former Nasa scientist Kirk Sorensen, one of thorium's staunchest advocates – have the potential to be outweighed by a proliferating number of MSRs. There are already 442 traditional reactors already in operation globally, according to the International Atomic Energy Agency. The by-products of thousands of smaller, ostensibly less wasteful reactors would soon add up. Anti-nuclear campaigner Peter Karamoskos goes further, dismissing a 'dishonest fantasy' perpetuated by the pro-nuclear lobby. Thorium cannot in itself power a reactor; unlike natural uranium, it does not contain enough fissile material to initiate a nuclear chain reaction. As a result it must first be bombarded with neutrons to produce the highly radioactive isotope uranium-233 – 'so these are really U-233 reactors,' says Karamoskos. This isotope is more hazardous than the U-235 used in conventional reactors, he adds, because it produces U-232 as a side effect (half life: 160,000 years), on top of familiar fission by-products such as technetium-99 (half life: up to 300,000 years) and iodine-129 (half life: 15.7 million years).Add in actinides such as protactinium-231 (half life: 33,000 years) and it soon becomes apparent that thorium's superficial cleanliness will still depend on digging some pretty deep holes to bury the highly radioactive waste. With billions of pounds already spent on nuclear research, reactor construction and decommissioning costs – dwarfing commitments to renewables – and proposed reform of the UK electricity markets apparently hiding subsidies to the nuclear industry, the thorium dream is considered by many to be a dangerous diversion. Energy consultant and former Friends of the Earth anti-nuclear campaigner Neil Crumpton says the government would be better deferring all decisions about its new nuclear building plans and fuel reprocessing until the early 2020s: 'By that time much more will be known about Generation IV technologies including LFTRs and their waste-consuming capability.' In the meantime, says Jean McSorley, senior consultant for Greenpeace's nuclear campaign, the pressing issue is to reduce energy demand and implement a major renewables programme in the UK and internationally – after all, even conventional nuclear reactors will not deliver what the world needs in terms of safe, affordable electricity, let alone a whole raft of new ones. 'Even if thorium technology does progress to the point where it might be commercially viable, it will face the same problems as conventional nuclear: it is not renewable or sustainable and cannot effectively connect to smart grids. The technology is not tried and tested, and none of the main players is interested. Thorium reactors are no more than a distraction.'

# Grid/Islands

## 1. Grid is resilient and sustainable

**Clark, Chenega Federal Systems senior analyst, 2012**

(Paul, “The Risk of Disruption or Destruction of Critical U.S. Infrastructure by an Offensive Cyber Attack”, 4-28, <http://americanmilitary.academia.edu/PaulClark/Papers/1600738/The_Risk_of_Disruption_or_Destruction_of_Critical_U.S._Infrastructure_by_an_Offensive_Cyber_Attack>, DOA: 9-26-12, ldg)

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

## 2. No risk of cyberattack and no impact

**Birch, former AP foreign correspondent, 10-1-12**

(Douglas, “Forget Revolution”, Foreign Policy, <http://www.foreignpolicy.com/articles/2012/10/01/forget_revolution?page=full>, DOA: 10-12-12, ldg)

"That's a good example of what some kind of attacks would be like," he said. "You don't want to overestimate the risks. You don't want somebody to be able to do this whenever they felt like it, which is the situation now. But this is not the end of the world." The question of how seriously to take the threat of a cyber attack on critical infrastructure surfaced recently, after Congress rejected a White House measure to require businesses to adopt stringent­ new regulations to protect their computer networks from intrusions. The bill would have required industries to report cyber security breaches, toughen criminal penalties against hacking and granted legal immunity to companies cooperating with government investigations. Critics worried about regulatory overreach. But the potential cost to industry also seems to be a major factor in the bill's rejection. A January study by Bloomberg reported that banks, utilities, and phone carriers would have to increase their spending on cyber security by a factor of nine, to $45.3 billion a year, in order to protect themselves against 95 percent of cyber intrusions. Likewise, some of the bill's advocates suspect that in the aftermath of a truly successful cyber attack, the government would have to bail the utilities out anyway. Joe Weiss, a cyber security professional and an authority on industrial control systems like those used in the electric grid, argued that a well-prepared, sophisticated cyber attack could have far more serious consequences than this summer's blackouts. "The reason we are so concerned is that cyber could take out the grid for nine to 18 months," he said. "This isn't a one to five day outage. We're prepared for that. We can handle that." But pulling off a cyber assault on that scale is no easy feat. Weiss agreed that hackers intent on inflicting this kind of long-term interruption of power would need to use a tool capable of inflicting physical damage. And so far, the world has seen only one such weapon: Stuxnet, which is believed to have been a joint military project of Israel and the United States. Ralph Langner, a German expert on industrial-control system security, was among the first to discover that Stuxnet was specifically designed to attack the Supervisory Control and Data Acquisition system (SCADA) at a single site: Iran's Natanz uranium-enrichment plant. The computer worm's sophisticated programs, which infected the plant in 2009, caused about 1,000 of Natanz's 5,000 uranium-enrichment centrifuges to self-destruct by accelerating their precision rotors beyond the speeds at which they were designed to operate. Professionals like Weiss and others warned that Stuxnet was opening a Pandora's Box: Once it was unleashed on the world, they feared, it would become available to hostile states, criminals, and terrorists who could adapt the code for their own nefarious purposes. But two years after the discovery of Stuxnet, there are no reports of similar attacks against the United States. What has prevented the emergence of such copycat viruses? A 2009 paper published by the University of California, Berkeley, may offer the answer. The report, which was released a year before Stuxnet surfaced, found that in order to create a cyber weapon capable of crippling a specific control system ­­-- like the ones operating the U.S. electric grid -- six coders might have to work for up to six months to reverse engineer the targeted center's SCADA system. Even then, the report says, hackers likely would need the help of someone with inside knowledge of how the network's machines were wired together to plan an effective attack. "Every SCADA control center is configured differently, with different devices, running different software/protocols," wrote Rose Tsang, the report's author. Professional hackers are in it for the money -- and it's a lot more cost-efficient to search out vulnerabilities in widely-used computer programs like the Windows operating system, used by banks and other affluent targets, than in one-of-a-kind SCADA systems linked to generators and switches. According to Pollard, only the world's industrial nations have the means to use the Internet to attack utilities and major industries. But given the integrated global economy, there is little incentive, short of armed conflict, for them to do so. "If you're a state that has a number of U.S. T-bills in your treasury, you have an economic interest in the United States," he said. "You're not going to have an interest in mucking about with our infrastructure." There is also the threat of retaliation. Last year, the U.S. government reportedly issued a classified report on cyber strategy that said it could respond to a devastating digital assault with traditional military force. The idea was that if a cyber attack caused death and destruction on the scale of a military assault, the United States would reserve the right to respond with what the Pentagon likes to call "kinetic" weapons: missiles, bombs, and bullets. An unnamed Pentagon official, speaking to the Wall Street Journal, summed up the policy in less diplomatic terms: "If you shut down our power grid, maybe we will put a missile down one of your smokestacks." Deterrence is sometimes dismissed as a toothless strategy against cyber attacks because hackers have such an easy time hiding in the anonymity of the Web. But investigators typically come up with key suspects, if not smoking guns, following cyber intrusions and assaults -- the way suspicions quickly focused on the United States and Israel after Stuxnet was discovered. And with the U.S. military's global reach, even terror groups have to factor in potential retaliation when planning their operations.

## Long-term generators and microgrids ensure DoD is resilient – Katrina proves no impact

Aimone, Business Enterprise Integration Director, Office of the Deputy Under Secretary of Defense, 12

(Michael, Office of the Deputy Under Secretary of Defense, , Testimony Before the House Committee on Homeland Security Subcommittee on Cybersecurity, Infrastructure Protection and Security Technologies, 9-12-12, http://homeland.house.gov/sites/homeland.house.gov/files/Testimony%20-%20Aimone.pdf, accessed 12-21-12, ara)

DoD’s facility energy strategy is also focused heavily on grid security in the name of mission assurance. Although the Department’s fixed installations traditionally served largely as a platform for training and deployment of forces, in recent years they have begun to provide direct support for combat operations, such as unmanned aerial vehicles (UAVs) flown in Afghanistan from fixed installations here in the United States. Our fixed installations also serve as staging platforms for humanitarian and homeland defense missions. These installations are largely dependent on a commercial power grid that is vulnerable to disruption due to aging infrastructure, weather-related events, and potential kinetic, cyber attack. In 2008, the Defense 2 Science Board warned that DoD’s reliance on a fragile power grid to deliver electricity to its bases places critical missions at risk. 1 Standby Power Generation Currently, DoD ensures that it can continue mission critical activities on base largely through its fleet of on-site power generation equipment. This equipment is connected to essential mission systems and automatically operates in the event of a commercial grid outage. In addition, each installation has standby generators in storage for repositioning as required. Facility power production specialists ensure that the generators are primed and ready to work, and that they are maintained and fueled during an emergency. With careful maintenance these generators can bridge the gap for even a lengthy outage. As further back up to this installed equipment, DoD maintains a strategic stockpile of electrical power generators and support equipment that is kept in operational readiness. For example, during Hurricane Katrina, the Air Force transported more than 2 megawatts of specialized diesel generators from Florida, where they were stored, to Keesler Air Force Base in Mississippi, to support base recovery. Next Generation Microgrids Although the Department will continue to maintain its fleet of on-site and mobile backup generators, we are moving aggressively to adopt next generation microgrids. Advanced microgrids, combined with on-site energy generation (e.g., solar or geothermal) and energy storage, offer a more robust and cost effective approach to ensuring installation energy security than the current solution (backup generators). Although microgrid systems are in use today, they are relatively unsophisticated, with limited ability to integrate renewable and other distributed energy sources, little or no energy storage capability, uncontrolled load demands, and “dumb” distribution that is subject to excessive energy losses. By contrast, we envision advanced (or “smart”) microgrids as local power networks that can utilize distributed energy, manage local energy supply and demand, and operate seamlessly both in parallel to the grid and in “island” mode. Advanced microgrids are a “triple play” for DoD’s installations: First, they will facilitate the incorporation of renewable and other on-site energy generation. Second, they will reduce installation energy costs on a day-to-day basis by allowing for load balancing and demand response—i.e., the ability to curtail load or increase on-site generation in response to a request from the grid operator. Third, and most importantly, the combination of on-site energy and storage, together with the microgrid’s ability to manage local energy supply and demand, will allow an installation to shed non-essential loads and maintain mission-critical loads if and when the grid goes down.

## No impact to cyberterror – media exaggeration

**Valeriano and Maness, Foreign Affairs Contributors, 12**

(Brandon, Lecturer of Social and Political Sciences at University of Glasgow, and Ryan, PhD Candidate at University of Illinois, “The Fog of Cyberwar”, [http://www.foreignaffairs.com/articles/138443/brandon-valeriano-and-ryan-maness/the-fog-of-cyberwar?page=2#](http://www.foreignaffairs.com/articles/138443/brandon-valeriano-and-ryan-maness/the-fog-of-cyberwar?page=2), 11/21/2012, da: 12/17/2012, lmm)

The Stuxnet and Flame attacks, however, are not the danger signs that some have made them out to be. First of all, the viruses needed to be physically injected into Iranian networks, likely by U.S. or Israeli operatives, suggesting that the tactic still requires traditional intelligence and military operation methods. Second, Stuxnet derailed Iran’s nuclear program for only a short period, if at all. And Flame did nothing to slow Iran’s nuclear progression directly, because it seems to have been only a data-collection operation. Some cyberattacks over the past decade have briefly affected state strategic plans, but none has resulted in death or lasting damage. For example, the 2007 cyberattacks on Estonia by Russia shut down networks and government websites and disrupted commerce for a few days, but things swiftly went back to normal. The majority of cyberattacks worldwide have been minor: easily corrected annoyances such as website defacements or basic data theft -- basically the least a state can do when challenged diplomatically. Our research shows that although warnings about cyberwarfare have become more severe, the actual magnitude and pace of attacks do not match popular perception. Only 20 of 124 active rivals -- defined as the most conflict-prone pairs of states in the system -- engaged in cyberconflict between 2001 and 2011. And there were only 95 total cyberattacks among these 20 rivals. The number of observed attacks pales in comparison to other ongoing threats: a state is 600 times more likely to be the target of a terrorist attack than a cyberattack. We used a severity score ranging from five, which is minimal damage, to one, where death occurs as a direct result from cyberwarfare. Of all 95 cyberattacks in our analysis, the highest score -- that of Stuxnet and Flame -- was only a three.

# Prolif

## Thorium doesn’t solve prolif – still have to use fissile material in the fuel cycle

**Makhijani, Institute for Energy and Environmental Research President, 09**

(Arjun, “Thorium Fuel: No Panacea for Nuclear Power”, http://ieer.org/wp/wp-content/uploads/2012/04/thorium2009factsheet.pdf, 9/19/12, atl)

Thorium “fuel” has been proposed as an alternative to uranium fuel in nuclear reactors. There are not “thorium reactors,” but rather proposals to use thorium as a “fuel” in different types of reactors, including existing light-water reactors and various fast breeder reactor designs. Thorium, which refers to thorium-232, is a radioactive metal that is about three times more abundant than uranium in the natural environment. Large known deposits are in Australia, India, and Norway. Some of the largest reserves are found in Idaho in the U.S. The primary U.S. company advocating for thorium fuel is Thorium Power (www.thoriumpower.com). Contrary to the claims made or implied by thorium proponents, however, thorium doesn’t solve the proliferation, waste, safety, or cost problems of nuclear power, and it still faces major technical hurdles for commercialization. Not a Proliferation Solution Thorium is not actually a “fuel” because it is not fissile and therefore cannot be used to start or sustain a nuclear chain reaction. A fissile material, such as uranium-235 (U-235) or plutonium-239 (which is made in reactors from uranium-238), is required to kick-start the reaction. The enriched uranium fuel or plutonium fuel also maintains the chain reaction until enough of the thorium target material has been converted into fissile uranium-233 (U- 233) to take over much or most of the job. An advantage of thorium is that it absorbs slow neutrons relatively efficiently (compared to uranium-238) to produce fissile uranium-233. The use of enriched uranium or plutonium in thorium fuel has proliferation implications. Although U-235 is found in nature, it is only 0.7 percent of natural uranium, so the proportion of U-235 must be industrially increased to make “enriched uranium” for use in reactors. Highly enriched uranium and separated plutonium are nuclear weapons materials. In addition, U-233 is as effective as plutonium-239 for making nuclear bombs. In most proposed thorium fuel cycles, reprocessing is required to separate out the U-233 for use in fresh fuel. This means that, like uranium fuel with reprocessing, bomb-making material is separated out, making it vulnerable to theft or diversion. Some proposed thorium fuel cycles even require 20% enriched uranium in order to get the chain reaction started in existing reactors using thorium fuel. It takes 90% enrichment to make weapons-usable uranium, but very little additional work is needed to move from 20% enrichment to 90% enrichment. Most of the separative work is needed to go from natural uranium, which has 0.7% uranium-235, to 20% U-235. It has been claimed that thorium fuel cycles with reprocessing would be much less of a proliferation risk because the thorium can be mixed with uranium-238. In this case, fissile uranium-233 is also mixed with non-fissile uranium-238. The claim is that if the uranium-238 content is high enough, the mixture cannot be used to make bombs without a complex uranium enrichment plant. This is misleading. More uranium-238 does dilute the uranium-233, but it also results in the production of more plutonium-239 as the reactor operates. So the proliferation problem remains – either bomb-usable uranium-233 or bomb-useable plutonium is created and can be separated out by reprocessing. Further, while an enrichment plant is needed to separate U-233 from U-238, it would take less separative work to do so than enriching natural uranium. This is because U-233 is five atomic weight units lighter than U-238, compared to only three for U-235. It is true that such enrichment would not be a straightforward matter because the U-233 is contaminated with U-232, which is highly radioactive and has very radioactive radionuclides in its decay chain. The radiation-dose-related problems associated with separating U-233 from U-238 and then handling the U-233 would be considerable and more complex than enriching natural uranium for the purpose of bomb making. But in principle, the separation can be done, especially if worker safety is not a primary concern; the resulting U-233 can be used to make bombs. There is just no way to avoid proliferation problems associated with thorium fuel cycles that involve reprocessing. Thorium fuel cycles without reprocessing would offer the same temptation to reprocess as today’s once-through uranium fuel cycles.

## SMRs destroys IAEA’s resources and effectiveness

**Lyman, Union of Concerned Scientists global security program senior scientist, 2011**

(Edwin, “The Nuclear Power 2021 Act” and S. 1067, “The Nuclear Energy Research Initiative Improvement Act of 2011”, 6-7, <http://www.ucsusa.org/assets/documents/nuclear_power/lyman-testimony-06-07-2011.pdf>, DOA: 9-26-12, ldg)

The distributed deployment of small reactors would put great strains on licensing and inspection resources. Nuclear reactors are qualitatively different from other types of generating facilities, not least because they require a much more intensive 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 even feasible.

## Lack of effective inspections turns the whole case---makes SMRs worse for prolif, safety and security

**Lyman, Union of Concerned Scientists global security program senior scientist, 2011**

(Edwin, “The Nuclear Power 2021 Act” and S. 1067, “The Nuclear Energy Research Initiative Improvement Act of 2011”, 6-7, <http://www.ucsusa.org/assets/documents/nuclear_power/lyman-testimony-06-07-2011.pdf>, DOA: 9-26-12, ldg)

Proponents of small modular reactors (SMRs) claim that their designs have inherent safety features compared to large reactors, and some even argue that their reactors would have been able to withstand an event as severe as Fukushima. We find these claims to be unpersuasive. For any plant, large or small, the key factor is the most severe event that the plant is designed to withstand—the so-called maximum “design-basis” event. Unless nuclear safety requirements for new reactors are significantly strengthened, one cannot expect that either small or large reactors will be able to survive a beyond-design-basis event like Fukushima. Although some light-water SMR concepts may have desirable safety characteristics, unless they are carefully designed, licensed, deployed and inspected, SMRs could pose comparable or even greater safety, security and proliferation risks than large reactors.

## Civilian cooperation is the only way non weapons states can proliferate

**Fuhrmann University of South Carolina Political Science Assistant Professor, 09**

(Matthew, “Spreading Temptation Proliferation and Peaceful Nuclear Cooperation Agreements”, International Security, Vol. 34, No. 1 (Summer 2009), pp. 7–41, 9/20/12, atl)

Decades ago scholars offered a “technological momentum” hypothesis, suggesting that countries are more likely to pursue nuclear weapons once they obtain civilian nuclear technology and expertise.21 The logic driving this hypothesis is that the accumulation of nuclear technology and knowledge leads to incremental advances in the field of nuclear engineering that ultimately makes progress toward developing a nuclear weapons capability before a formal decision to build the bomb is made.22 John Holdren illustrates this argument well when he states that the proliferation of nuclear power represents the spread of an “attractive nuisance.”23 This logic highlights the relationship between the peaceful and military uses of the atom, but it underplays the political dimensions of proliferation.24 Peaceful nuclear cooperation and nuclear weapons are related in two key respects. First, all technology and materials linked to a nuclear weapons program have legitimate civilian applications. For example, uranium enrichment and plutonium reprocessing facilities have dual uses because they can produce fuel for power reactors or fissile material for nuclear weapons. Second, civilian nuclear cooperation increases knowledge in nuclear-related matters. This knowledge can then be applied to weapons-related endeavors. Civilian nuclear programs necessitate familiarity with the handling of radioactive materials, processes for fuel fabrication and materials having chemical or nuclear properties, and the operation and function of reactors and electronic control systems. They also provide experience in other crucial fields, such as metallurgy and neutronics.25 These experiences offer “a technology base upon which a nuclear weapon program could draw.”26 These linkages suggest that peaceful nuclear assistance reduces the expected costs of a weapons program, making it more likely that a decision to begin such a program will be made. Considerable political and economic costs—such as international sanctions, diplomatic isolation, and strained relationships with allies—can accompany nuclear weapons programs.27 Leaders may be reluctant to take on these burdens unless they believe that a weapons campaign could succeed relatively quickly.28 As Stephen Meyer argues, “When the financial and resource demands of [beginning a weapons program] become less burdensome, states might opt to proceed . . . under a balance of incentives and disincentives that traditionally might have been perceived as insufficient for a proliferation decision.”29 Sometimes, nuclear assistance can cause leaders to initiate nuclear weapons programs in the absence of a compelling security threat. This usually happens when scientists and other members of atomic energy commissions convince the political leadership that producing a nuclear weapon is technologically possible and can be done with relatively limited costs.30 Scientists do not always push leaders down the nuclear path, but in many cases they do.31 Leaders are persuaded by this lobbying because they are keenly aware that the quicker the bomb can be developed, the less likely other national priorities will suffer. Although nuclear assistance occasionally produces bomb programs in the absence of a security threat, the relationship between such assistance and proliferation is usually more nuanced. Countries that have received considerable assistance are especially likely to initiate bomb programs when threats arise because they have greater demand for the strategic advantages that nuclear weapons offer.32 In other words, peaceful nuclear assistance typically conditions the effect that a security environment has on a state’s political decision to begin a weapons program. A state that suffers a defeat in war or feels threatened for another reason is unlikely to initiate a program if it lacks a developed civilian nuclear program. Without the technical base in place, it is too costly to venture down the weapons path. This explains, in part, why Saudi Arabia has yet to begin a nuclear weapons program even though it faces considerable security threats.33 Likewise, countries are unlikely to nuclearize—even if they have accumulated significant amounts of assistance—if they do not face security threats. On the other hand, initiation of a weapons program is more likely in states that operate in dangerous security environments and possess peaceful nuclear facilities and a cadre of trained scientists and technicians. There are also strong theoretical reasons to suggest the existence of a relationship between civilian nuclear cooperation and the acquisition of nuclear weapons. Given the links described above, civilian nuclear energy cooperation can aid nuclear weapons production by providing the technology and items necessary to produce fissile material.34 This is noteworthy because fissile material production is the most difficult step in building the bomb.35 Cooperation also establishes a technical knowledge base that permits advances in nuclear explosives and related fields, ultimately facilitating bomb production. Occasionally, technical capacity alone causes states to produce the bomb. But just as all states receiving nuclear aid do not begin weapons programs, every country that acquires assistance does not assemble bombs. Security threats, which provide the political motivation to build the bomb, coupled with atomic aid are a recipe for the acquisition of nuclear weapons.

## No widespread proliferation

**Hymans, USC IR professor, 2012**

(Jacques, “North Korea's Lessons for (Not) Building an Atomic Bomb”, 4-16, [www.foreignaffairs.com/articles/137408/jacques-e-c-hymans/north-koreas-lessons-for-not-building-an-atomic-bomb?page=show](http://www.foreignaffairs.com/articles/137408/jacques-e-c-hymans/north-koreas-lessons-for-not-building-an-atomic-bomb?page=show), DOA: 9-26-12, ldg)

Washington's miscalculation is not just a product of the difficulties of seeing inside the Hermit Kingdom. It is also a result of the broader tendency to overestimate the pace of global proliferation. For decades, Very Serious People have predicted that strategic weapons are about to spread to every corner of the earth. Such warnings have routinely proved wrong - for instance, the intelligence assessments that led to the 2003 invasion of Iraq - but they continue to be issued. In reality, despite the diffusion of the relevant technology and the knowledge for building nuclear weapons, the world has been experiencing a great proliferation slowdown. Nuclear weapons programs around the world are taking much longer to get off the ground - and their failure rate is much higher - than they did during the first 25 years of the nuclear age. As I explain in my article "Botching the Bomb" in the upcoming issue of Foreign Affairs, the key reason for the great proliferation slowdown is the absence of strong cultures of scientific professionalism in most of the recent crop of would-be nuclear states, which in turn is a consequence of their poorly built political institutions. In such dysfunctional states, the quality of technical workmanship is low, there is little coordination across different technical teams, and technical mistakes lead not to productive learning but instead to finger-pointing and recrimination. These problems are debilitating, and they cannot be fixed simply by bringing in more imported parts through illicit supply networks. In short, as a struggling proliferator, North Korea has a lot of company.