# r2 neg v. puget sound ms

## 1nc

### T

#### The aff is a fiscal incentive, not a financial incentive

Czinkota et al, 9- Associate Professor at the McDonough School of Business at Georgetown University (Michael, Fundamentals of International Business, p. 69 – google books)

Incentives offered by policymakers to facilitate foreign investments are mainly of three types: fiscal, financial, and nonfinancial. **Fiscal incentives** are specific tax measures designed to attract foreign investors. They typically consist of special depreciation allowances, tax credits or rebates, special deductions for capital expenditures, tax holidays, and the reduction of tax burdens. **Financial incentives** offer special funding for the investor by providing, for example, land or buildings, loans, and loan guarantees. **Nonfinancial incentives** include guaranteed government purchases; special protection from competition through tariffs, import quotas, and local content requirements, and investments in infrastructure facilities.

#### Voter for limits and ground—fiscal dodges core market controversies and galvanizes solvency while making us account for every facet of government operations—creates an unmanageable burden

### DA

#### Obama will get a debt limit deal because he has enough polcap to roll Republicans

**Judis 1-3** – John, senior editor for The New Republic (Obama Wasn't Rolled. He Won!, The New Republic, http://www.tnr.com/blog/plank/111573/obama-didnt-get-rolled-the-fiscal-cliff-in-fact-he-won#)

With a new House and Senate, Obama stands a good chance of winning these battles in the months to come -- if he continues to conduct these negotiations as political campaigns and not as backroom Washington affairs. The fiscal cliff deal took tax rates out of the discussion. What’s left are spending cuts. If Obama allows the Republicans and obnoxious groups like Fix the Debt to frame the issues, he’ll be in trouble. And he did seem to fall into this trap briefly when he proposed changing the cost of living index for Social Security. But if he reminds the public that what the Republicans and their allies want to do is cut their Medicare and Social Security, he and the Democrats should be in good shape.¶ As for the Republicans, **the debate** over the fiscal cliff, like the debate last year over the debt limit, **revealed** serious **divisions** within the party and its rank-and-file **that Obama** and the Democrats **could** exploit over the next months. There are at least three different kinds of divisions that have become visible. First is between the Senate and the House. Senate Republicans, who are in a minority, have proven more amenable to compromise on fiscal issues. Unlike most Republican House members, many senators can’t count on being re-elected by solid Republicans majorities. McConnell himself comes from a state where Democrats still hold most of the state offices. ¶ Secondly, there is a regional division in the party between the deep South, which contains many of the diehard House Republicans, and the Republicans from the Northeast, industrial Midwest, and the Far West. In the House vote on the fiscal cliff, Republican House members from the deep South opposed it by 83 to 10, while Republicans from the Northeast favored it by 24 to one, and those from the Far West by 17 to eight. After the Republican leadership refused to bring a Sandy hurricane relief bill to the floor before the end of the session – effectively killing it – New York Republican Peter King called on New York and New Jersey Republicans to withhold donations to the GOP. New Jersey Governor Chris Christe blew his top at the House Republicans.¶ Third, there is a division among Republican lobbies, political organizations and interest groups that surfaced in the wake of the election and once again this week. It’s not easy to define, but it runs between pro-business conservatives, on the one hand, and the right-wing libertarians of the Tea Party and Club for Growth and their billionaire funders. Grover Norquist and Americans for Tax Reform gave their approval the Senate bill. The Chamber of Commerce grudgingly endorsed the final bill, and the National Federation of Independent Business said the tax provisions were acceptable. The Club for Growth, the Koch Brothers’ Americans for Prosperity, FreedomWorks (which itself has fallen under the sway of its most ideological elements), and the Tea Party Patriots opposed any compromise. ¶ These divisions **don’t necessarily augur** the kind of **formal split** that wrecked the Whig Party in the 1850s. Nor do they suggest widespread defection of Republicans into the Democratic Party as happened during the 1930s. There is still far too much distance between, say, McConnell and Democratic Majority Leader Harry Reid. But they do suggest that a process of erosion is under way that will weaken the Republicans’ ability to maintain a united front against Democratic initiatives. That could happen in the debates over the sequester and debt ceiling if Obama and the Democrats make the kind of public fuss that they did over fiscal cliff.

#### Plan drains capital

Nature 9 Natural Magazine. “Adieu to nuclear recycling,” July 9, <http://www.nature.com/nature/journal/v460/n7252/full/460152b.html>

¶ Such efforts will be applauded worldwide, but another decision by the Obama administration deserves equal acclaim. On 29 June, the president quietly cancelled a lengthy environmental review that was the first step in allowing the resumption of commercial nuclear reprocessing in the United States. Nuclear reprocessing chemically separates uranium and plutonium from spent nuclear fuel so that it can be reused in specialized reactors. The same technique can be used to purify material for nuclear weapons, and it is partly for that reason that the United States decided to halt reprocessing in the 1970s.¶ ¶ Obama's predecessor, George W. Bush, sought to reverse that decision. He thought that reprocessing could be part of a broader approach that would see used fuel from non-nuclear-weapons states brought to the United States for reprocessing. As part of the Global Nuclear Energy Partnership programme, Bush advocated the construction of a demonstration commercial reprocessing plant, and an environmental review was already under way when Obama came into office.¶ ¶ Such a plant, had the plans been allowed to continue, would have been both costly and counterproductive. Proliferation worries aside, reprocessing is complex, expensive and creates a liquefied stream of highly radioactive waste that is difficult to dispose of. The technology is likely to be needed within the next two decades, so Obama is right in his decision to allow research into ways to improve reprocessing, while constraining the programme to one of basic science.¶ ¶ The decision to halt commercial nuclear recycling sends a clear message that the United States is committed to nuclear non-proliferation. Such decisions, together with diplomacy such as that taking place in Russia, are deliberate and encouraging first steps towards building an international consensus on reducing the threat from nuclear weapons.

#### The impact is growth—near term debates key

**Maass 1-2** – Harold, the Week's online executive editor (The looming debt-ceiling fight: Worse than the fiscal cliff?, The Week, http://theweek.com/article/index/238312/the-looming-debt-ceiling-fight-worse-than-the-fiscal-cliff)

In many ways, the threat of default in two months is a more serious risk than the Jan. 1 fiscal cliff deadline. If Congress does not increase the debt ceiling, the government will quickly run out of ways to pay the nation's bills and make interest payments on the nation’s outstanding debt. Any failure by the government to meet its financial obligations could be seen as a default, shaking world financial markets, given the special role that U.S. government bonds play in the global economy.

Obama is still smarting from the 2011 debt-ceiling dispute, says Neil Munro at The Daily Caller. In that fight, "the GOP eventually pressured him to accept spending curbs in exchange for an increase to the debt limit up to $16.4 trillion." Obama has been complaining about that defeat ever since, and he's vowing not to let it happen again. But the GOP-led House is adamant about using "its authority over the nation's debt ceiling to pressure Obama to shrink future spending."

#### Nuclear war

Harris and Burrows, 9 – \*counselor in the National Intelligence Council, the principal drafter of Global Trends 2025, \*\*member of the NIC’s Long Range Analysis Unit “Revisiting the Future: Geopolitical Effects of the Financial Crisis”, Washington Quarterly, http://www.twq.com/09april/docs/09apr\_burrows.pdf)

Increased Potential for Global Conflict

Of course, the report encompasses more than economics and indeed believes the future is likely to be the result of a number of intersecting and interlocking forces. With so many possible permutations of outcomes, each with ample opportunity for unintended consequences, there is a growing sense of insecurity. Even so, history may be more instructive than ever. While we continue to believe that the Great Depression is not likely to be repeated, the lessons to be drawn from that period include the harmful effects on fledgling democracies and multiethnic societies (think Central Europe in 1920s and 1930s) and on the sustainability of multilateral institutions (think League of Nations in the same period). There is no reason to think that this would not be true in the twenty-first as much as in the twentieth century. For that reason, the ways in which the potential for greater conflict could grow would seem to be even more apt in a constantly volatile economic environment as they would be if change would be steadier.

In surveying those risks, the report stressed the likelihood that terrorism and nonproliferation will remain priorities even as resource issues move up on the international agenda. Terrorism’s appeal will decline if economic growth continues in the Middle East and youth unemployment is reduced. For those terrorist groups that remain active in 2025, however, the diffusion of technologies and scientific knowledge will place some of the world’s most dangerous capabilities within their reach. Terrorist groups in 2025 will likely be a combination of descendants of long established groups inheriting organizational structures, command and control processes, and training procedures necessary to conduct sophisticated attacks and newly emergent collections of the angry and disenfranchised that become self-radicalized, particularly in the absence of economic outlets that would become narrower in an economic downturn.

The most dangerous casualty of any economically-induced drawdown of U.S. military presence would almost certainly be the Middle East. Although Iran’s acquisition of nuclear weapons is not inevitable, worries about a nuclear-armed Iran could lead states in the region to develop new security arrangements with external powers, acquire additional weapons, and consider pursuing their own nuclear ambitions. It is not clear that the type of stable deterrent relationship that existed between the great powers for most of the Cold War would emerge naturally in the Middle East with a nuclear Iran. Episodes of low intensity conflict and terrorism taking place under a nuclear umbrella could lead to an unintended escalation and broader conflict if clear red lines between those states involved are not well established. The close proximity of potential nuclear rivals combined with underdeveloped surveillance capabilities and mobile dual-capable Iranian missile systems also will produce inherent difficulties in achieving reliable indications and warning of an impending nuclear attack. The lack of strategic depth in neighboring states like Israel, short warning and missile flight times, and uncertainty of Iranian intentions may place more focus on preemption rather than defense, potentially leading to escalating crises.

Types of conflict that the world continues to experience, such as over resources, could reemerge, particularly if protectionism grows and there is a resort to neo-mercantilist practices. Perceptions of renewed energy scarcity will drive countries to take actions to assure their future access to energy supplies. In the worst case, this could result in interstate conflicts if government leaders deem assured access to energy resources, for example, to be essential for maintaining domestic stability and the survival of their regime. Even actions short of war, however, will have important geopolitical implications. Maritime security concerns are providing a rationale for naval buildups and modernization efforts, such as China’s and India’s development of blue water naval capabilities. If the fiscal stimulus focus for these countries indeed turns inward, one of the most obvious funding targets may be military. Buildup of regional naval capabilities could lead to increased tensions, rivalries, and counterbalancing moves, but it also will create opportunities for multinational cooperation in protecting critical sea lanes. With water also becoming scarcer in Asia and the Middle East, cooperation to manage changing water resources is likely to be increasingly difficult both within and between states in a more dog-eat-dog world.

### K

#### The affirmative frames existence in terms of human value – this ethic creates the world as standing reserve and legitimizes endless genocide – the only way to escape is voting neg to affirm the infinite value of all forms of Being

**Introna 9 –** Professor of Organization, Technology and Ethics at Lancaster University

(Lucas, “Ethics and the Speaking of Things,” *Theory, Culture & Society* 2009 vol 26 no 4, 25-46, dml)

In the ethics of hybrids our ethical relationship with things is determined beforehand by us, it is anthropocentric. In this encounter with things we have already chosen, or presumed, the framework of values that will count in determining moral signiﬁcance. In this ethics, things are always and already ‘**things-for-us’** – objects for our use, in our terms, for our purposes. They are always **inscribed with our intentionality** – they carry it in their ﬂesh, as it were. The deﬁning measure of the ethics of hybrids is the human being – the meaning of the Latin root of ‘man’ is measure. Indeed our concern for things is what they might do to us humans, as was suggested above. Our concern **is not our instrumental use of them, the violence of our inscriptions in/on them, but that such scripts may ultimately harm us**. As things-for-us, or ‘objects’ as we will refer to them, they have no moral signiﬁcance as such. In the value hierarchy of the modern ethical mind they are very far down the value line. What could be less morally signiﬁcant than an inanimate object? Their moral signiﬁcance is only a derivative of the way they may circulate the network as inscriptions for utility or enrolment. For example, they may become valuable if they can be sold in a market where they are valued, as is the case with works of art. The magnitude and diversity of our projects are mirrored in the magnitude and diversity of the objects that surround us. As things-for-us they are at our disposal – **if they fail to be useful**, or when our projects drift or shift, **we ‘dump’ them**. Images of endless ‘scrap’ heaps at the edges of our cities abound. Objects are made/inscribed, used and ﬁnally dumped. We can dispose of them because we author-ized them in the ﬁrst place. Increasingly we design them in such a way that we can dispose of them as effortlessly as possible. Ideally, their demise must be as invisible as possible. Their entire moral claim on our conscience is naught, it seems. One can legitimately ask **why should we concern ourselves** with things in a world where the ethical landscape is already overcrowded with grave and pressing matters such as untold human suffering, disappearing bio-diversity and ozone layers – to name but a few. It is our argument that our moral indifference to so many supposedly signiﬁcant beings (humans, animals, nature, etc.) starts with the idea that there are some beings that are less signiﬁcant or not signiﬁcant at all. More originally it starts with a metaphysics that has as its centre – the ultimate measure – us human beings – a metaphysics which has been at the heart of Western philosophy ever since Plato (Heidegger, 1977a). Thus, when we start our moral ordering we tend to value more highly things like us (sentient, organic/natural, alive, etc.) and less highly, or not at all, things most alien to us (non-sentient, synthetic/artiﬁcial, inanimate, etc.). It is our argument that one of the reasons why this anthropocentric ethics of things **fails** is because it assumes that we can, both in principle and in practice, **draw a deﬁnitive boundary** between the objects (them) and us. Social studies of science and technology have thrown severe doubt on such a possibility. If it is increasingly difﬁcult to draw the boundary between our objects and us, and if in this entangled network of humans and non-humans objects lack moral signiﬁcance from the start, then it is rather **a small step** to take for an ethics to emerge in which all things – human and non-human alike – **circulate as objects**: ‘things-for-the-purposes-of’ the network. In ordering society as assemblages of humans and objects we ultimately also become ordered as a ‘for-the-purposes-of’. Thus, the irony of an anthropocentric ethics of things is that ultimately we also become ‘objects’ in programmes and scripts, at the disposal of a higher logic (capital, state, community, environment, etc.). In the network, others and our objects ‘objectify’ us. For example, I cannot get my money out from the bank machine because I forgot my PIN number. Until I identify myself in its terms (as a ﬁve digit number) I am of no signiﬁcance to it. Equally, if I cannot prove my identity by presenting inscribed objects (passport, drivers licence) I cannot get a new PIN number. In Heidegger’s (1977b) words **we have all become ‘standing reserve’**, on ‘stand by’ for the purposes of the network – enframed (Gestell) by the calculative logic of our way of being. Enframed in a global network that has as its logic to control, manipulate and dominate: ‘Enframing is the gathering together which belongs to that setting-upon which challenges [hu]man and puts him in position to reveal the actual, in the mode of ordering, as standing-reserve’ (Heidegger, 1977a: 305). The value hierarchy presumed in an anthropocentric ethics is in fact a dynamic network of values and interests – there never was a hierarchy. The fate of our objects becomes our fate. In the ethics of hybrids we are also already objects – indeed everything is already object. Instead of a hierarchy of values we ﬁnd a complete nihilism in which **everything is leveled out,** everything is potentially equally valuable/valueless; a nihilistic network in which ‘the highest values devaluate themselves’ (Nietzsche, 1967: 9). If this is so, then we would argue that we should not ‘extend’ our moral consideration to other things, such as inanimate objects – in a similar manner that we have done for animals and other living things, in environmental ethics for example. In other words we should not simply extend the reach of what is considered morally signiﬁcant to include more things. Rather, we should **abandon all systems of moral valuing** and admit, with Heidegger, that in ‘the characterisation of something as “a value” what is so valued is robbed of its worth’ and admit that ‘what a thing is in its Being is not exhausted by its being an object, particularly when objectivity takes the form of value’, furthermore, that ‘every valuing, even where it values positively, is a subjectivising’ (Heidegger, 1977a: 228). We must abandon ethics for **a clearing beyond ethics** – to let beings be in their own terms. We must admit that any attempt at humanistic moral ordering – be it egocentric, anthropocentric, biocentric (Goodpaster, 1978; Singer, 1975) or even ecocentric (Leopold, 1966; Naess, 1995) – will fail. Any ethics based on us will eventually turn everything into our image, pure will to power (Heidegger, 1977a, 1977b). As Lingis (1994: 9) suggests: ‘The man-made species we are, which produces its own nature in an environment it produces, ﬁnds nothing within itself that is alien to itself, opaque and impervious to its own understanding’ (emphasis added). Instead of creating value systems in our own image, the absolute otherness of every other should be **the only moral imperative**. We need an ethics of things that is beyond the self-identical-ness of human beings. Such an ethics beyond metaphysics needs as its ‘ground’ not a system for comparison, but rather a recognition of the impossibility of any comparison – **every comparison is already violent** in its attempt to render equal what could never be equal (Levinas, 1991 [1974]). How might we encounter the other in its otherness? Levinas (1991 [1974], 1996, 1999) has argued for the radical singularity of our fellow human beings. But what about all other others? In the next section we will argue that Heidegger, especially as presented in the work of Harman (2002, 2005), might provide us with some hints towards the overcoming of ethics, towards an ethos of letting-be of all beings.

### DA

#### Uranium prices will stay high

David Sadowski 12, mining research analyst with a background in geological science, 8-24-2012, “Uranium prices set to spike in 2013,” Mine Web, http://www.mineweb.com/mineweb/view/mineweb/en/page72103?oid=157609&sn=Detail&pid=102055

DS: We're definitely bullish on the outlook for uranium. Although prices have softened in recent months, we have a very strong conviction that this trend is soon to reverse and investors should be exposed to uranium today. Beyond the high incentive prices for new supply that we just touched on, there are three primary reasons for our view. The first one is compelling supply/demand fundamentals. Next, there is the seasonality of uranium prices. And, most importantly, there are industry catalysts. Shall we take a look at each one? TER: Please, go right ahead. DS: After the Fukushima Daiichi accident last year, the nuclear industry has done some soul searching and decided to take a slower, more cautious pace in the construction of new reactors globally. But what many people don't realize is that according to World Nuclear Association (WNA) data, there are nine more reactors in the planned and proposed category today than there were before the accident. Demand for nuclear power has remained resilient with ramping electricity requirements around the world, volatility in fossil fuel prices, energy supply security concerns and a global preference for carbon-neutral sources. The majority of this demand is from Asia. In fact, we estimate 82% of new capacity through 2020 will be built in only four countries-China, India, Russia and South Korea. Part of the reason for that is that state-owned utilities don't face the same problems associated with other regions, like high upfront construction costs, widespread antinuclear public sentiment and lengthy regulatory timelines. So, this continued growth should support commensurate levels of demand for uranium for decades to come. All of this demand begs the question, where is this uranium going to come from? Well, we don't think supply is going to be able to keep up. Due to recent soft prices, many major projects have been delayed or shelved. We are projecting a three-year supply shortfall starting in 2014, and that certainly paints a very rosy supply/demand picture for investors. Seasonality also favors uranium exposure today. Over the last 10 years, uranium spot prices have dropped on average $4/lb during the third quarter (Q3) but have rebounded by at least that amount in Q4, which is the strongest quarter of the year. This is often correlated with the annual WNA symposium, where many market participants sit down and hammer out new supply agreements. This year's conference is going to be held September 12-14 in London. Last but not least, there are several near-term catalysts that we think will start the price upswing. In Japan, all but two reactors are now offline, and there's significant uncertainty and government debate about how many will eventually restart. As the world's third-largest nuclear fleet, it has obvious implications for future uranium demand. For a variety of economic, political and environmental reasons, we think Japan will restart most of its reactors by 2017 with the first batch of reactors likely starting early in 2013. As more units start to return to service, it will provide additional confidence that the nuclear utilities in Japan are unlikely to dump their inventories into the market, which should support prices in the near-term. Meanwhile in China, the government paused construction approvals for new reactors immediately after last year's Fukushima accident. But with these safety reviews now successfully completed, they're poised to start re-permitting new projects, and this should undoubtedly support increased uranium contracting. Let's not forget that China will be far-and-away the largest source of nuclear demand growth for the foreseeable future. We expect a six-fold increase in installed nuclear capacity by the end of this decade. The final major catalyst is the expiry of the Russian Highly Enriched Uranium (HEU) agreement to down-blend material from nuclear warheads into reactor fuel. This agreement has supplied the Western World for two decades but is due to conclude at the end of 2013. The Russians have repeatedly stated they're not interested in extending this agreement, and we expect this to remove about 24 Mlbs/year or 13% from the global supply. That's equivalent to shutting down the world's largest mine, McArthur River, as well as all six operating mines in the U.S. That's a massive impact. So, for these reasons we think prices are poised to turn here. We forecast prices to average above $60/lb in 2013 and north of $70/lb in 2014 and 2015 before settling to $70/lb in the long-term.

#### Downward pressure undermines Kazakhstan mining industry

McDermott 11 (Roger, Senior Fellow, Foreign Military Studies Office, Fort Leavenworth, “Kazakhstan: Countering nuclear proliferation, Action to develop a nuclear and terrorist-free world,” in Kazakhstan 2011: Twenty Years of Peace and Creation, *First: The Forum for Global Decision Makers*, 2011, <http://www.firstmagazine.com/Publishing/SpecialReportsDetail.aspx?RegionId=4&SpecialReportId=96>)

Kazakhstan’s ambitions are likely to be realized if uranium prices stay high and Kazatomprom is successful in further expanding its international partnerships. Kazatomprom’s most immediate task is to secure customers for its final nuclear fuel product--fuel assemblies, an extra fuel fabrication stage which Kazatomprom plans to start carrying out domestically. Having a nearly complete nuclear fuel cycle, save for enrichment, will ensure a stable cash flow for Kazatomprom and limit its dependence on the fluctuating market price of raw uranium. In the meantime, increased uranium sales will help alleviate the country’s overdependence on oil exports and help modernize its nuclear sector. If Kazakhstan does become the world’s leading uranium and nuclear fuel supplier, the ramifications for the country both in terms of increased gross domestic product and status on the world stage will be profound.

#### Crushes their economy—prevents diversification

Pleitgen 12 (Frederick, CNN, “Kazakhstan hopes uranium, oil and gas will fuel its future,” 7-18-12,

<http://articles.cnn.com/2012-07-18/asia/world_asia_kazakhstan-natural-resources-economy_1_vladimir-shkolnik-kazakhstan-uranium>)

Kazakhstan's mineral wealth will be a major source of income for decades to come, but it won't last forever. The country is trying to use it wisely to transition to a broader economic base while developing the natural resources industries to the maximum. Last year Kazakhstan was the world's top producer of uranium, accounting for over a third of global production. The industry's rapid expansion, plus the good quality of the uranium and the comparatively cheap method of mining it have combined to give Kazakhstan an advantage over other big exporters like Australia and Canada. With continued investment, Vladimir Shkolnik, the head of Kazakhstan's national atomic energy company, Kazatomprom, is keen to maintain that position. "We are hoping to keep our leadership position in the uranium field," he says. "We have dozens of facilities and hundreds of mines and we think we will remain a world leader in the uranium sector." Kazakhstan's government is also trying to encourage more foreign investment. Since independence in 1991, around $150 billion of foreign investment has flowed into the country; $18 billion dollars last year alone, according to the government. Companies like GE and Eurocopter have been attracted to the country, entering partnerships with national companies that have helped bring training and new skills to the local workforce. While money is flowing from the country's natural resources industry, the government is using some of its revenue to boost other sectors, like IT and engineering. The aim is to make the economy more resilient when commodities prices fall and better prepared for the day when the gush of oil and gas reduce to a trickle. "Of course revenues from raw materials are still by far the largest share of the country's budget," says energy analyst, Murat Karymsakov. "But in recent years the president (of Kazakhstan) has announced and put into place a plan for industrial and technological development to diversify the economy."

#### Destroys stability

Hamm 12 (Nathan, founder and Principal Analyst for Registan, MA in Central Asian Studies from the University of Washington, “Kazakhstan’s Stability, Central Asia’s Stability,” 1-31-12, <http://registan.net/2012/01/31/kazakhstans-stability-central-asias-stability/>)

I’m paraphrasing, but on the first two items, Dr. Roberts argues that the thoroughly Soviet education and background of Kazakhstan’s leadership leaves it out of touch and unable to adequately respond to the public. The government’s response to labor strikes, including the violence in Zhanaozen, he says, show that the government was not prepared to deal with dissatisfaction over unmet economic expectations. Dr. Roberts says that these challenges are not extreme nor likely to cause widespread unrest in the near term, but that the stagnancy of the political system means that the government lacks mechanisms to deal with large socio-economic changes. [Note: Alima wrote about the crisis of unmet expectations at length recently.] This is good, succinct analysis of the situation that puts risks to Kazakhstan’s stability in good context. The risks are there, the government is ill-prepared to deal with them at present, but it’s unlikely that it will be overwhelmed by them soon. These risks, however, aren’t present only in Kazakhstan. They exist in similar forms and combinations throughout Central Asia. Growing segments of society throughout the region are bringing (or attempting to…) Islam into the public square, where it is responded to with shock and terror by secular officials. National economies are failing to meet the expectations, and in many areas, even the basic needs, of the public. And though nationalism is not so clearly a problem the way it is Kazakhstan and Kyrgyzstan in the rest of Central Asia, there are small signs that society is challenging the state’s monopoly on defining what it means to be Uzbek, Tajik, Kyrgyz, etc. In talking about risks to stability, there is often a tendency to focus on presidential succession, the specter of fundamentalism and political Islam, and a more recent tendency to talk about replication of the Arab Spring. Recent history should make it abundantly clear though, that analysts, experts, and observers are taken by surprise in the region. Game-planning what happens after Karimov dies or a resurgence of the IMU activity in Tajikistan and Kyrgyzstan might be worthless because they assume state and society lack the mechanisms to respond to and manage succession or terrorist groups. The greatest risks to stability throughout the region are medium- to long-term risks arising from the three aforementioned factors and the oppositional relationship between state and society. Devising a list of indicators and warnings based on the three factors Dr. Roberts identifies — rising public religiosity, increasing nationalism, and under-performance in the economy — are more likely not only to lead to better anticipation of the trajectory of stability in Central Asia but also to provide a better idea of when serious risks to stability are likely to arise.

#### Spread regionally

Assenova 8 (Margarita Assenova, IND Director; Natalie Zajicova, Program Officer (IND); Janusz Bugajski, CSIS NEDP Director; Ilona Teleki, Deputy Director and Fellow (CSIS); Besian Bocka, Program Coordinator and Research Assistant (CSIS), “Kazakhstan’s Strategic Significance,” 2008, CSIS-IND Taskforce Policy Brief team, European Dialogue, <http://eurodialogue.org/Kazakhstan-Strategic-Significance>)

The decision by the Organization for Security and Cooperation in Europe (OSCE) to award Kazakhstan the chairmanship of the organization for 2010 underscores a growing recognition of the country’s regional and continental importance. Kazakhstan is a strategic linchpin in the vast Central Asian-Caspian Basin zone, a region rich in energy resources and a potential gateway for commerce and communications between Europe and Asia. However, it is also an area that faces an assortment of troubling security challenges. Ensuring a stable and secure Central Asia is important for the international interests of the United States and its European allies for several prescient reasons: • Asian Security: Because of its proximity to Russia, China, Iran, and the South Asian sub-continent, Kazakhstan’s security and stability is an increasingly vital interest to all major powers. Kazakhstan’s tenure as chair of the OSCE will become an opportunity for greater multilateral cooperation in achieving this objective while strengthening the role and prestige of the OSCE throughout Central Asia.

#### Nuke war

Ahrari 1 (M. Ehsan, Professor of National Security and Strategy of the Joint and Combined Warfighting School at the Armed Forces Staff College, August 2001, “Jihadi Groups, Nuclear Pakistan and the New Great Game,” http://www.strategicstudiesinstitute.army.mil/pdffiles/pub112.pdf)

South and Central Asia constitute a part of the world where a well-designed American strategy might well help avoid crises or catastrophe. The U.S. military would provide only one component of such a strategy, and a secondary one at that, but has an important role to play through engagement activities and regional confidence building. Insecurity has led the states of the region to seek weapons of mass destruction, missiles and conventional arms. It has also led them toward policies which undercut the security of their neighbors. If such activities continue, the result could be increased terrorism, humanitarian disasters, continued low-level conflict and potentially even major regional war or a thermonuclear exchange. A shift away from this pattern could allow the states of the region to become solid economic and political partners for the United States, thus representing a gain for all concerned.

### DA

#### US won’t cave to South Korea on reprocessing now

Yonhap, 3-8-2012, “U.S. unlikely to allow S. Korea to reprocess nuclear fuel,” http://english.yonhapnews.co.kr/national/2012/03/08/23/0301000000AEN20120308007100315F.HTML

The United States is unlikely to allow South Korea to adopt its indigenous technology aimed at reprocessing highly radioactive spent nuclear fuel in their negotiations to revise a bilateral nuclear accord, a senior Seoul diplomat involved in the talks said Thursday. The refusal by U.S. negotiators stemmed from a "deep-rooted distrust" of South Korea, which had once authorized a clandestine nuclear weapons program in the early 1970s under former president Park Jung-hee but shut it down under pressure from Washington, the diplomat said on the condition of anonymity. Rather than pressing the U.S. to allow South Korea to adopt the proliferation-resistant reprocessing technology, called "pyroprocessing," Seoul is focusing on revising the nuclear accord to make it easier to export nuclear power plants, the diplomat said.

#### Domestic pyroprocessing shatters the norm and makes pressure impossible—results in Korean reprocessing

Scott Sagan, poly sci prof @ Stanford, co-chair Global Nuclear Future Initiative, 4-18-2011, “The International Security Implications of U.S. Domestic Nuclear Power Decisions,” http://cybercemetery.unt.edu/archive/brc/20120621005012/http://brc.gov/sites/default/files/documents/sagan\_brc\_paper\_final.pdf

A similar phenomenon occurs when policy makers and scholars underestimate the international effect of the U.S. decision to abandon plutonium reprocessing in the 1970s. Skeptics claim that the fact that France and Japan, especially, went forward with their ambitious plutonium reprocessing efforts somehow demonstrates that U.S. efforts to constrain the global growth were a failure. But a more appropriate standard (but again more difficult to measure) for assessing our influence would estimate the number of states that would have developed plutonium reprocessing capabilities if the U.S. had not actively discouraged such fuel cycle activities after Jimmy Carter’s April 1997 order to cancel construction of commercial breeder reactors that employed a closed fuel cycle with plutonium reprocessing. The primary motivation behind the decision to postpone the development of this technology was a concern for the proliferation implications of the U.S. use of a closed fuel cycle. 17 The Carter administration reasoned that the decision to end reprocessing in the U.S. would have two effects: first, the U.S. could no longer act as an exporter of related technologies, limiting their availability; and second, it would create a normative change that would redefine the behavior of a responsible nuclear power state. Because we are estimating a counterfactual condition, it is not possible to measure definitively the effects of the Carter policy on the actual spread of reprocessing facilities around the world. Of the twenty-one countries that at some point in their history pursued plutonium reprocessing, ten have finished large-scale facilities and use them today: U.S., China, Israel, France, UK, India, Japan, Pakistan, Russia, and North Korea. 18 Algeria and the Czech Republic have a pilot-scale reprocessing plants, but have not moved towards further industrial development. 19 Nine countries abandoned their reprocessing programs: South Korea, Taiwan, Germany, Iraq, Italy, Argentina, Brazil, Belgium, and Yugoslavia. 20 The causes of these reversal decisions were complex, but in many of the cases U.S. diplomatic pressure was an important factor and that pressure was made more credible and acceptable because the U.S had given up its own civilian plutonium reprocessing programs. This “credibility” factor continues to be important today. South Korea is lobbying to renegotiate its agreements with the U.S. to be able to develop “pyro-processing,” a form of spent fuel reprocessing that supporters claim poses fewer proliferation risks than standard PUREX acqueous reprocessing. While this appears a challenge to the claim that the U.S. policy has had a positive influence, the very fact that the South Koreans are actively arguing that pyro-processing – unlike the PUREX process – does not separate out plutonium shows their awareness of the power of the norm against developing such technologies. While the U.S. government initially cooperated with South Korea on pyroprocessing research, Richard Stratford (Director of the Office of Nuclear Energy Affairs in the Bureau of Nonproliferation, U. S. Department of State) recently stated that the technology “moved to the point that the product is dangerous from a proliferation point of view,” and that the DOE now “states frankly and positively that pyro-processing is reprocessing.” The U.S. government position against pyro-processing in South Korea today is made more credible by the fact that the U.S. does not reprocess spend fuel for commercial purposes. 21

#### Triggers Asian prolif and undermines efforts all over the region

Zachary Keck 12, Assistant Editor of The Diplomat, “Rough Waters? The State of the ROK-U.S. Alliance,” The Diplomat, 8-22-12, http://thediplomat.com/flashpoints-blog/2012/08/22/rough-waters-the-state-of-the-rok-u-s-alliance/

Washington’s concerns over South Korean’s nuclear ambitions have only been heightened by Seoul’s latest campaign to acquire indigenous enrichment and reprocessing facilities, which it is proscribed from doing under a nuclear pact it signed with Washington in 1974. In contrast, the U.S. has signed agreements recognizing Japan’s reprocessing and enrichment rights as well as India’s de facto reprocessing capability. Now, with the U.S. and South Korea renegotiating the 1974 nuclear pact that will expire in 2014, South Korea has demanded that Washington acquiesce to Seoul building enrichment and processing facilities. South Korea’s immediate interest in acquiring these capabilities is not nuclear weapons but rather further expanding its nuclear energy industry at home and abroad. Nonetheless, the U.S. has rejected South Korea’s request thus far, with President Obama’s top proliferation adviser, Garry Samore, telling South Korean reporters last month, “There is no danger that Korean industry will not be able to get access to low enriched uranium," Washington has a number of reasons to oppose South Korea’s request, many of which have nothing to do with Seoul. For instance, a key component of President Obama’s nuclear security agenda is the goal of securing all nuclear materials worldwide within four years. Allowing South Korea to begin producing its own fissile materials would run counter to this goal and undercut the administration’s important successes in reducing the number of countries that possess and produce these materials. Allowing South Korea to build these facilities would also undermine the current U.S.-led campaign to persuade Iran to abandon its own enrichment facilities. It would also adversely affect a number of U.S. objectives in the Asia-Pacific, including persuading Pyongyang to surrender its own nuclear program, according Japan a heightened status among U.S. allies, and keeping Southeast Asia’s budding nuclear energy programs on their current peaceful trajectories. Under the surface, however, Washington’s opposition is likely due in part to its uncertainty over South Korea’s long-term nuclear intentions. As noted above, South Korea already has a history of covertly seeking nuclear arms. That this took place before Seoul became a democracy is cold comfort to the U.S given that South Koreans have at times been overwhelming in favor of their country acquiring nuclear weapons. In other words, at a time when the region is undergoing sweeping changes, the U.S. is increasingly less confident that South Korea will continue to rely on Washington for its security indefinitely. Indeed, there are already a number of signs that Seoul is seeking greater autonomy. These come at a time when the U.S. will need South Korea more than ever in order to properly rebalance its forces in the region.

#### Nuclear war

Lyon 9 (December, Program Director, Strategy and International, with Australian Strategic Policy Institute, previously a Senior Lecturer in International Relations at the University of Queensland, “A delicate issue, Asia’s nuclear future”)

Deterrence relationships in Asia won’t look like East–West deterrence. They won’t be relationships of mutual assured destruction (MAD), and there will be many asymmetries among them. Regional nuclear-weapon states will articulate a spectrum of strategies ranging from existential deterrence to minimum deterrence to assured retaliation; and sometimes doctrinal statements will outrun capabilities. The smaller arsenals of Asia and the absence of severe confrontations will help to keep doctrines at the level of generalised deterrence. Extended nuclear deterrence will continue to be important to US allies in East Asia, although it is hard to imagine other Asian nuclear weapon states ‘extending’ deterrence to their clients or allies. Alagappa’s propositions contain a ‘picture’ of what a more proliferated Asia might look like. It could well remain a region where deterrence dominates, and where arsenals are typically constrained: an Asia, in fact, that falls some way short of a ‘nuclear chaos’ model of unrestrained proliferation and mushrooming nuclear dangers. An order in flux? Notwithstanding Alagappa’s more reassuring view, we shouldn’t understate the extent of the looming change from a nuclear relationship based on bipolar symmetry to a set of relationships based on multiplayer asymmetries. As one observer has noted, when you add to that change the relatively constrained size of nuclear arsenals in Asia, the likelihood of further nuclear reductions by the US and Russia, and ballistic missile defences of uncertain effectiveness, the world is about to enter uncharted territory (Ford 2009:125). Some factors certainly act as stabilising influences on the current nuclear order, not least that nuclear weapons (here as elsewhere) typically induce caution, that the regional great powers tend to get along reasonably well with each other and that the region enters its era of nuclear pre-eminence inheriting a strong set of robust norms and regimes from the earlier nuclear era. But other factors imply a period of looming change: geopolitical dynamism is rearranging strategic relationships; the number of risk-tolerant adversaries seems to be increasing; most nuclear weapons states are modernising their arsenals; the American arsenal is ageing; and the US’s position of primacy is increasingly contested in Asia. Indeed, it may be that dynamism which could most seriously undermine the Solingen model of East Asian nonproliferation. Solingen, after all, has not attempted to produce a general theory about proliferation; she has attempted to explain only proliferation in the post-NPT age (see Solingen 2007:3), when the P-5 of the UN Security Council already had nuclear weapons. In essence, though, it’s exactly that broader geopolitical order that might be shifting. It isn’t yet clear how the Asian nuclear order will evolve. It’s one of those uncertainties that define Australia’s shifting strategic environment. It’s not too hard to imagine an order that’s more competitive than the one we see now. The ‘managed system of deterrence’ The second approach to thinking about the Asian nuclear order is to attempt to superimpose upon it William Walker’s two key mechanisms of the first nuclear age: the ‘managed system of deterrence’ and the ‘managed system of abstinence’. What might those ‘systems’ look like in Asia? In Walker’s model, the managed system of deterrence included: the deployment of military hardware under increasingly sophisticated command and control; the development of strategic doctrines to ensure mutual vulnerability and restraint; and the establishment of arms control processes through which policy elites engaged in dialogue and negotiated binding agreements. (Walker 2007:436) It isn’t obvious that those core aspects of the ‘managed’ system are all central features of Asian nuclear relationships. Perhaps most importantly, it isn’t obvious that the world even has a good model for how deterrence works in asymmetric relationships. Within the US, there’s been something of a revival of interest in matters nuclear as strategic analysts attempt to reconceptualise how nuclear relationships might work in the future. Recent work on the problems of exercising deterrence across asymmetrical strategic contests, for example, suggests a number of problems: ‘In asymmetric conflict situations, deterrence may not only be unable to prevent violence but may also help foment it’ (Adler 2009:103). Some of the problems arise precisely because weaker players seem increasingly likely to ‘test’ stronger players’ threats—as part of a pattern of conflict that has emerged over recent centuries, in which weaker players have often prevailed against stronger opponents.3 If we were to look at the case study of the India–Pakistan nuclear relationship—which is grounded in an enduring strategic rivalry, and therefore not ‘typical’ of the broader nuclear relationships in Asia—it’s a moot point whether Pakistani behaviour has been much altered by the ‘deterrence’ policies of India. Indeed, the case seems to show that Pakistan doesn’t even accept a long-term condition of strategic asymmetry with India, and that it intends to use its nuclear weapons as an ‘equaliser’ against India’s larger conventional forces by building a nuclear arsenal larger than the Indian arsenal arrayed against it. That would imply, more broadly, that increasing strategic rivalries across Asia could be accompanied by efforts to minimise asymmetrical disadvantages between a much wider range of players. In short, in a more competitive Asian strategic environment, nuclear asymmetries that are tolerable now might well become less tolerable. Furthermore, we need to think about how we might ‘codify’ deterrence in Asia. In the Cold War days, the MAD doctrine tended to be reflected in arms control accords that limited wasteful spending and corralled the competition. As Walker acknowledges, the agreements were important ‘stabilisers’ of the broader nuclear relationship, but to what extent can they be replicated in conditions of asymmetry? It might be possible to codify crisis management procedures, but designing (and verifying) limitations on weapons numbers would seem to be much more difficult when the arsenals are of uneven size, and when the weaker party (perhaps both parties) would probably be relying on secrecy about the numbers and locations of weapons to minimise the vulnerability of their arsenals.

### CP

#### Counterplan:

#### The Department of Defense should substantially increase market-fixed production cost incentives for electricity from Small Modular Light Water Non-Thorium Reactors for military facilities in the United States.

#### The United States Federal Government should establish a Nuclear Waste Policy Commission to direct an evolutionary solution to nuclear waste storage in the United States including repositories and sustainable disposal technologies.

#### Solves the entire aff—their grid evidence is generically about SMRs, thorium might be sufficient but it isn’t necessary to solve.

#### The difference is fuel type—the counterplan relies on conventional uranium fuel, but the plan replaces that demand with thorium

NNL 12—National Nuclear Laboratory (UK), Comparison of thorium and uranium fuel cycles, NNL (11) 11593 Issue 5, A report prepared for and on behalf of Department of Energy and Climate Change, http://www.decc.gov.uk/assets/decc/11/meeting-energy-demand/nuclear/6300-comparison-fuel-cycles.pdf

6.7. Small modular water reactors¶ Small modular water reactor designs are based on existing Light Water Reactor (LWR) technology, but scaled down to benefit from increased applicability of passive safety. Small modular LWRs might use conventional UO2 fuels or UO2-PuO2 MOX fuels or thorium-based fuels.¶ 6.7.1. Uranium-plutonium fuel cycle¶ The U-Pu fuel cycle in small modular LWRs is identical to that currently deployed in current LWRs and can therefore be considered to be fully technologically mature.¶ Small modular LWRs could be well suited for plutonium disposition in the UK, with their capacities potentially matching better the requirements for siting at Sellafield, co-located with a MOX fabrication facility. Some small modular LWR cores are designed with long life cores for which MOX fuel is well suited.¶ 6.7.2. Thorium fuel cycle¶ As with conventional LWRs, thorium fuels are a potential option that would have the major benefit of reducing dependence on uranium ore. There are two approaches that might be used, one based on a once-through cycle and one based on recycle of the U-233:¶ The Lightbridge fuel assembly discussed in Section 2 [5] is one example of a once-through thorium fuel cycle option that could be used without modification in small modular LWRs. The Lightbridge fuel design should be regarded as having a low Technology Readiness Level at present, because it has innovative design features that have only been demonstrated at small scale. Other options can be envisaged in which current LWR assembly mechanical designs are used without modification, with either a heterogeneous or homogeneous distribution of thorium in the fuel rods. This latter option¶ could be regarded as having a higher Technology Readiness Level, though there may still remain issues related to thorium fuel manufacture and fuel performance that remain to be demonstrated. The benefits of a once-through thorium fuel cycle are a modest reduction in uranium ore requirements and a modest reduction in radiotoxicity.¶ Full recycle of U-233 is another potential option for small modular LWRs. This option is already being considered by AREVA [9] for large LWRs and would give more substantial reductions in uranium ore requirements and radiotoxicity that once-through approaches. However, as noted earlier, recycle of U-233 requires the THOREX process and remote fuel fabrication methods, both of which have not been developed, which puts this option at a low Technology Readiness Level.

#### Reprocessing not key—second part of the counterplan solves fuel access

Richard B. Stewart 8, University Professor and John Edward Sexton Professor of Law; Chair and Faculty Director, Hauser Global Law School Program; Director, Frank J. Guarini Center for Environmental and Land Use Law; New York University School of Law, 2008, “Symposium: Breaking the Logjam: Environmental Reform for the New Congress and Administration: Panel VII: Managing Waste: U.S. Nuclear Waste Law and Policy: Fixing a Bankrupt System,” New York University Environmental Law Journal, 17 N.Y.U. Envtl. L.J. 783

The second step Congress and the President should take is to constitute a high level Nuclear Waste Policy Commission to engage in a total review and rethinking of the country's nuclear waste policy and chart a new course. The commission should include representatives of key federal agencies, including DOE, EPA, NRC, Defense, Interior, State, and Commerce; key members of Congress; and representatives of states with major nuclear facilities or sites, including Nevada, Washington, New Mexico, Idaho, and South Carolina as well as a cross-section of other states. Such an organization, which would have certain affinities to federal base closing commissions but would focus on general polices and institutional arrangements rather than specific decisions, would enlist the services of a strong staff as well as relevant existing expert advisory committees. Such an initiative is needed to kick start a thoroughgoing review of nuclear waste law and policy and give it prominence and potential buy-in to recommendations for change by key constituencies.

Neither the administration nor Congress has been able or willing on their own to institute such a review. Establishing such a commission to take the lead would be a politically attractive option [\*811] for a new President. To make comprehensive proposals for a new approach, this high-level expert body, similar to the Carter IRG, would take the lead in portage around the existing nuclear waste policy logjam. The approach taken should be ambitious and comprehensive, including not only current and future wastes but issues relating to the back-end of the fuel cycle in general, alternative technologies including reprocessing and new types of reactors, and broader considerations including climate change, energy security, and domestic and international security against nuclear proliferation and terrorism. A focus on wastes in isolation would ignore the several ways in which they are embedded in this larger complex of issues, and thereby risk adoption of short-sighted approaches that overlook cross-cutting opportunities.

### Grid

#### Status quo solves the entire advantage

**Aimone, 9/12**/12 - Director Business Enterprise Integration Office of the Deputy Under Secretary of Defense (Installations and Environment) (Michael, Congressional Testimony, http://homeland.house.gov/sites/homeland.house.gov/files/Testimony%20-%20Aimone.pdf)

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.

DoD’s Installation Energy Test Bed, run out of the Department’s Installations and Environment office, is funding ten demonstrations of microgrid and storage technologies to evaluate the benefits and risks of alternative approaches and configurations. The Test Bed is working with multiple vendors so as to allow DoD to capture the benefits of competition. Demonstrations are underway at Twentynine Palms, CA (General Electric’s advanced microgrid system); Fort Bliss, TX (Lockheed Martin); Joint Base McGuire-Dix-Lakehurst, NJ (United Technologies); Fort Sill, OK (Eaton); and several other installations.

#### Zero impact to grid failures, even ones caused by cyber attacks

Douglas Birch 10-1, former foreign correspondent for the Associated Press and the Baltimore Sun who has written extensively on technology and public policy, 10/1/12, “Forget Revolution,” Foreign Policy, http://www.foreignpolicy.com/articles/2012/10/01/forget\_revolution?page=full

Government officials sometimes describe a kind of Hieronymus Bosch landscape when warning of the possibility of a cyber attack on the electric grid. Imagine, if you will, that the United States is blindsided by an epic hack that interrupts power for much of the Midwest and mid-Atlantic for more than a week, switching off the lights, traffic signals, computers, water pumps, and air conditioners in millions of homes, businesses, and government offices. Americans swelter in the dark. Chaos reigns!

Here's another nightmare scenario: An electric grid that serves two-thirds of a billion people suddenly fails in a developing, nuclear-armed country with a rich history of ethnic and religious conflict. Rail transportation is shut down, cutting off travel to large swathes of the country, while many miners are trapped underground.

Blackouts on this scale conjure images of civil unrest, overwhelmed police, crippled hospitals, darkened military bases, the gravely injured in the back of ambulances stuck in traffic jams.

The specter of what Defense Secretary Leon Panetta has called a "digital Pearl Harbor" led to the creation of U.S. Cyber Command, which is tasked with developing both offensive and defensive cyber warfare capabilities, and prompted FBI Director Robert Mueller to warn in March that cyber attacks would soon be "the number one threat to our country." Similar concerns inspired both the Democrats and Republicans to sound the alarm about the cyber threat in their party platforms.

But are cyber attacks really a clear and present danger to society's critical life support systems, capable of inflicting thousands of casualties? Or has fear of full-blown cybergeddon at the hands of America's enemies become just another feverish national obsession -- another of the long, dark shadows of the 9/11 attacks?

Worries about a large-scale, devastating cyber attack on the United States date back several decades, but escalatedfollowing attacks on Estonian government and media websites during a diplomatic conflict with Russia in 2007. That digital ambush was followed by a cyber attack on Georgian websites a year later in the run-up to the brief shooting war between Tbilisi and Moscow, as well as allegations of a colossal, ongoing cyber espionage campaign against the United States by hackers linked to the Chinese army.

Much of the concern has focused on potential attacks on the U.S. electrical grid. "If I were an attacker and I wanted to do strategic damage to the United States...I probably would sack electric power on the U.S. East Coast, maybe the West Coast, and attempt to cause a cascading effect," retired Admiral Mike McConnell said in a 2010 interview with CBS's 60 Minutes.

But the scenarios sketched out above are not solely the realm of fantasy. This summer, the United States and India were hit by two massive electrical outages -- caused not by ninja cyber assault teams but by force majeure. And, for most people anyway, the results were less terrifying than imagined.

First, the freak "derecho" storm that barreled across a heavily-populated swath of the eastern United States on the afternoon of June 29 knocked down trees that crushed cars, bashed holes in roofs, blocked roads, and sliced through power lines.

According to an August report by the U.S. Department of Energy, 4.2 million homes and businesses lost power as a result of the storm, with the blackout stretching across 11 states and the District of Columbia. More than 1 million customers were still without power five days later, and in some areas power wasn't restored for 10 days. Reuters put the death tollat 23 people as of July 5, all killed by storms or heat stroke.

The second incident occurred in late July, when 670 million people in northern India, or about 10 percent of the world's population, lost power in the largest blackout in history. The failure of this huge chunk of India's electric grid was attributed to higher-than-normal demand due to late monsoon rains, which led farmers to use more electricity in order to draw water from wells. Indian officials told the media there were no reports of deaths directly linked to the blackouts.

But this cataclysmic event didn't cause widespread chaos in India -- indeed, for some, it didn't even interrupt their daily routine. "[M]any people in major cities barely noticed the disruption because localized blackouts are so common that many businesses, hospitals, offices and middle-class homes have backup diesel generators," the New York Timesreported.

The most important thing about both events is what didn't happen. Planes didn't fall out of the sky. Governments didn't collapse. Thousands of people weren't killed. Despite disruption and delay, harried public officials, emergency workers, and beleaguered publics mostly muddled through.

The summer's blackouts strongly suggest that a cyber weapon that took down an electric grid even for several days could turn out to be little more than a weapon of mass inconvenience.

That doesn't mean the United States can relax. James Lewis, director of the technology program at the Center for Strategic and International Studies, believes that hackers threaten the security of U.S. utilities and industries, and recently penned an op-ed for the New York Times calling the United States "defenseless" to a cyber-assault. But he told Foreign Policy the recent derecho showed that even a large-scale blackout would not necessarily have catastrophic consequences.

#### The tech is immature

Howarth ’10 – Managing Director of the UK National Nuclear Laboratory (Paul, “The Thorium Fuel Cycle,” August, UK National Nuclear Laboratory, http://ripassetseu.s3.amazonaws.com/www.nnl.co.uk/\_files/documents/aug\_11/NNL\_\_1314092891\_Thorium\_Cycle\_Position\_Paper.pdf)

NNL believes that the thorium fuel cycle does not currently have a role to play in the UK context, other than its potential application for plutonium management in the medium to long term and depending on the indigenous thorium reserves, is likely to have only a limited role internationally for some years ahead. The technology is innovative, although technically immature and currently not of interest to the utilities, representing significant financial investment and risk without notable benefits. In many cases, the benefits of the thorium fuel cycle have been over-stated.

#### Takes FOREVER to come online

Tickell ’12 – British journalist, author and campaigner on health and environment issues, and author of the Kyoto2 climate initiative (Oliver, “Thorium: Not Green, Not Viable and Not Likely,” Nuclear Pledge, June, http://www.nuclearpledge.com/reports/thorium\_briefing\_2012.pdf)

3.8 Timescale¶ Claim: Thorium and the LFTR offer a solution to current and medium-term energy supply deficits.¶ Response: The thorium fuel cycle is immature. Estimates from the UK’s National Nuclear Laboratory and the Chinese Academy of Sciences (see 4.2 below) suggest that 10-15 years of research will be needed before thorium fuels are ready to be deployed in existing reactor designs. Production LFTRs will not be deployable on any significant scale for 40-70 years.

#### All the benefits of thorium are far off and hypothetical—there’s a reason the industry isn’t investing.

NNL 12—National Nuclear Laboratory (UK), Comparison of thorium and uranium fuel cycles, NNL (11) 11593 Issue 5, A report prepared for and on behalf of Department of Energy and Climate Change, http://www.decc.gov.uk/assets/decc/11/meeting-energy-demand/nuclear/6300-comparison-fuel-cycles.pdf

Thorium fuel cycle R&D has a long history dating back to the very beginning of the nuclear industry. Though there are potential advantages, with the exception of India, it has failed to become established in commercial reactors for the reasons that have been explained in this report. Even in India, utilisation of thorium fuels still remains at relatively small scale. In recent years the thorium fuel cycle has been promoted by many research groups and technical companies such as Lightbridge and Thor Energy.¶ While the thorium fuel cycle has some benefits compared with the uranium-plutonium fuel cycle, these have yet to be demonstrated or substantiated, particularly in a commercial or regulatory environment. The U-Pu fuel cycle has the advantage of being fully mature and of having used in three generations of reactor designs. In contrast, the thorium fuel cycle is disadvantaged because all the supporting infrastructure would have to be established from scratch.¶ This is very relevant to the UK, especially at the present time in view of plans to start a new build programme in the UK based on LWRs. It could be argued that the main priority for the UK is to ensure the momentum that the new build programme currently has built up is maintained, in order that the new build plants will be available in good time to meet the projected shortfalls of low carbon electrical capacity. This only permits existing reactor designs with the uranium-plutonium fuel cycle. Innovative thorium fuelled reactors will not be a viable alternative for at least 20 to 30 years and definitely cannot meet the new build timescales. A limited role for thorium fuels in new build LWRs might be possible at a later date, with perhaps a partial transition to thorium-U233 fuels later in their lifetimes and any major shift towards the thorium fuel cycle would only be realistic in a follow-on programme of reactor construction.¶ Thorium fuelled reactors have already been advocated as being inherently safer than LWRs [18], but the basis of these claims is not sufficiently substantiated and will not be for many years, if at all. Suggesting that the UK should consider thorium reactors as a safer alternative to LWRs is not a viable option at this time as the UK energy shortfall and demand is on much shorzter timescales than thorium fuelled reactors could respond to. Furthermore, since the energy market is driven by private investment and with none of the utility companies investing or currently developing either thorium fuels or thorium fuelled reactor concepts, it is clear that there is little appetite or belief in the safety or performance claims.

### Prolif

#### High temp reprocessing fails—just as dangerous

Tickell ’12 – British journalist, author and campaigner on health and environment issues, and author of the Kyoto2 climate initiative (Oliver, “Thorium: Not Green, Not Viable and Not Likely,” Nuclear Pledge, June, http://www.nuclearpledge.com/reports/thorium\_briefing\_2012.pdf)

3.4 Safety¶ Claim: LFTRs are intrinsically safe, because the reactor operates at low pressure and is and incapable of melting down.¶ Response: the design of molten salt reactors does indeed mitigate against reactor meltdown and explosion. However, in an LFTR the main danger has been shifted from the reactor to the on-site continuous fuel reprocessing operation – a high temperature process involving highly hazardous, explosive and intensely radioactive materials. A further serious hazard lies in the potential failure of the materials used for reactor and fuel containment in a highly corrosive chemical environment, under intense neutron and other radiation.

#### Thorium doesn’t safeguard the fuel cycle

Rees ’11 – the Ecologist's acting Green Living Editor (Eifion, “Don't believe the spin on thorium being a ‘greener’ nuclear option,” June 23, The Ecologist, <http://www.theecologist.org/News/news_analysis/952238/dont_believe_the_spin_on_thorium_being_a_greener_nuclear_option.html>

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 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.   ¶ Extra radioactive waste¶ 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, 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. ¶ Thorium for the UK?¶ 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.’

**Iran is deterrable – its current foreign policy actively seeks to minimize risk**

**Eisenstadt, 05 -** senior fellow and director of the Military and Security Studies Program at The Washington Institute for Near East Policy (Michael, GETTING READY FOR A NUCLEAR-READY IRAN, ed: Sokolski and Clawson, <http://stinet.dtic.mil/cgi-bin/GetTRDoc?AD=A439744&Location=U2&doc=GetTRDoc.pdf>)

The perception, however, of Iran as an irrational, undeterrable state with a high pain threshold is both anachronistic and wrong. Within the context of a relatively activist foreign policy, Iranian decisionmakers have generally sought to minimize risk by shunning direct confrontation and by acting through surrogates (such as the Lebanese Hizballah) or by means of stealth (Iranian small boat and mine operations against shipping in the Gulf during the Iran-Iraq War) in order to preserve deniability and create ambiguity about their intentions. Such behavior is evidence of an ability to engage in rational calculation and to accurately assess power relationships. Moreover, despite the frequent resort to religious imagery in speeches and interviews, Iranian officials often employ the language of deterrence as it is spoken and understood in the West when discussing the country’s national security strategy. Thus, shortly after the *Shehab-3* missile test launch in July 1998, Defense Minister Ali Shamkhani explained that to bolster Iran’s deterrent capability “we have prepared ourselves to absorb the first strike so that it inflicts the least damage on us. We have, however, prepared a second strike which can decisively avenge the first one, while preventing a third strike against us.”7

#### Terrorists aren’t pursuing nukes

Wolfe 12 – Alan Wolfe is Professor of Political Science at Boston College. He is also a Senior Fellow with the World Policy Institute at the New School University in New York. A contributing editor of The New Republic, The Wilson Quarterly, Commonwealth Magazine, and In Character, Professor Wolfe writes often for those publications as well as for Commonweal, The New York Times, Harper's, The Atlantic Monthly, The Washington Post, and other magazines and newspapers. March 27, 2012, "Fixated by “Nuclear Terror” or Just Paranoia?" [http://www.hlswatch.com/2012/03/27/fixated-by-“nuclear-terror”-or-just-paranoia-2/](http://www.hlswatch.com/2012/03/27/fixated-by-)

If one were to read the most recent unclassified report to Congress on the acquisition of technology relating to weapons of mass destruction and advanced conventional munitions, it does have a section on CBRN terrorism (note, not WMD terrorism). The intelligence community has a very toned down statement that says “several terrorist groups … probably remain interested in [CBRN] capabilities, but not necessarily in all four of those capabilities. … mostly focusing on low-level chemicals and toxins.” They’re talking about terrorists getting industrial chemicals and making ricin toxin, not nuclear weapons. And yes, Ms. Squassoni, it is primarily al Qaeda that the U.S. government worries about, no one else. The trend of worldwide terrorism continues to remain in the realm of conventional attacks. In 2010, there were more than 11,500 terrorist attacks, affecting about 50,000 victims including almost 13,200 deaths. None of them were caused by CBRN hazards. Of the 11,000 terrorist attacks in 2009, none were caused by CBRN hazards. Of the 11,800 terrorist attacks in 2008, none were caused by CBRN hazards.

#### No successful detonation

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

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

## 2nc

### iran

#### And it gives us cradle to grave control over the nuclear fuel because it’s sealed inside—proves no opportunity to reprocess or steal anything—this is THEIR 1ac author

Mandel 9 (Jenny – Scientific American, Environment & Energy Publishing, LLC, “Less Is More for Designers of "Right-Sized" Nuclear Reactors” September 9, 2009, http://www.scientificamerican.com/article.cfm?id=small-nuclear-power-plant-station-mini-reactor)

Tom Sanders, president of the American Nuclear Society and manager of Sandia National Laboratories' Global Nuclear Futures Initiative, has been stumping for small rectors for more than a decade. American-made small reactors, Sanders insists, can play a central role in global nonproliferation efforts. "Our role at Sandia is the national security-driven notion that it's in the interests of the U.S. to be one of the dominant nuclear suppliers," Sanders said. While U.S. companies have been exiting the industry over the past decades as government and popular support for new construction has waned, Sanders maintains that strong U.S. participation in the nuclear energy marketplace would give diplomats a new tool to use with would-be nuclear powers. "It's hard to tell Iran what to do if you don't have anything Iran wants," he explained. Sanders said mini-reactors are ideal to sell to developing countries that want to boost their manufacturing might and that would otherwise look to other countries for nuclear technologies. If the United States is not participating in that market, he said, it becomes hard to steer buyers away from technologies that pose greater proliferation risks. Sanders been promoting this view since the 1990s, he said, when he realized "we were no longer selling nuclear goods and services, so we could no longer write the rules." The domestic nuclear industry had basically shut down, with no new construction in decades and a flight of talent and ideas overseas. There is a silver lining in that brain drain, though, he believes, in that U.S. companies getting back into the game now are less tied to the traditional, giant plants and are freer to innovate. A feature that several of the new product designs share is that the power plants could be mass-produced in a factory to minimize cost, using robots to ensure consistency. Also, with less design work for each installation, the time to complete an order would be shortened and some of the capital and other costs associated with long lead times avoided, Sanders said. Another feature he favors is building the plants with a lifetime supply of fuel sealed inside. Shipped loaded with fuel, such reactors could power a small city for 20 years without the host country ever handling it. Once depleted, the entire plant would be packed back up and shipped back to the United States, he said, with the sensitive spent fuel still sealed away inside. Sanders is working on a reactor design hatched by the lab with an undisclosed private partner. He believes it is feasible to build a prototype modular reactor -- including demonstration factory components and a mockup of the reactor itself -- as early as 2014, for less than a billion dollars. A mini-reactor could ring up at less than $200 million, he said, or at $300 million to $400 million with 20 years of fuel. At $3,000 to $4,000 per kilowatt, he said, that would amount to significant savings over estimates of $4,000 to $6,000 per kilowatt for construction alone with traditional plant designs. To get a design ready to build, Sanders is urging a partnership between the government and the private sector. "If it's totally a government research program, labs can take 20 to 30 years" to finish such projects, he said. "If it becomes a research science project, it could go on forever." New approach, old debates So far, there is no sign that the government's nuclear gatekeeper, NRC, is wowed by the small-reactor designs. NRC's Office of New Reactors warned Babcock & Wilcox in June that the agency "will need to limit interactions with the designers of small power reactors to occasional meetings or other nonresource-intensive activities" over the next two years because of a crowded schedule of work on other proposals. Meanwhile, opponents of nuclear technologies are not convinced that small reactors are an improvement over traditional designs. Arjun Makhijani, who heads the Institute for Energy and Environmental Research, a think tank that advocates against nuclear power, sees disseminating the technology as incompatible with controlling it. "A lot of the proliferation issue is not linked to having or not having plutonium or highly enriched uranium, but who has the expertise to have or make bombs," Makhijani said. "In order to spread nuclear technologies, you have to have the people who have the expertise in nuclear engineering, who know about nuclear materials and chain reactions and things like that -- the same expertise for nuclear bombs. That doesn't suffice for you to make a bomb, but then if you clandestinely acquire the materials, then you can make a bomb." Peter Wilk, acting program director for safe energy with Physicians for Social Responsibility, an anti-nuclear group, argues that expanding nuclear power use runs counter to the goal of nonproliferation. "The whole proposition presupposes an ... international economy in which more and more fuel is produced and more and more waste must be dealt with, which only makes those problems that are still unsolved larger," he said. "It may or may not do a better job of preventing the host country from literally getting their hands on it, but it doesn't reduce the amount of fuel in the world or the amount of waste in the world," Wilk added. And then there is the issue of public opinion. "Imagine that Americans would agree to take the waste that is generated in other countries and deal with it here," Makhijani said. "At the present moment, it should be confined to the level of the fantastic, or even the surreal. If [the technology's backers] could come up with a plan for the waste, then we could talk about export." Makhijani pointed to a widely touted French process for recycling nuclear waste as a red herring (ClimateWire, May 18). "It's a mythology that it ameliorates the waste problem," he said. According to Makhijani's calculations, the French recycling process generates far more radioactive waste than it cleans up. One category of highly radioactive material, which ends up stored in glass "logs" for burial, is reduced, he said. But in processing the waste, about six times the original volume of waste is produced, he said. Much of that must be buried deep underground, and the discharge of contaminated wastewater used in recycling has angered neighboring countries, he said. Operational risk, of course, is another major concern. "One has reduced the amount of unnecessary risk," Wilke said, "but it's still unnecessary risk." He added, "I get the theory that smaller, newer, ought to be safer. The question is: Why pursue this when there are so many better alternatives?" To Sandia's Sanders, Wilke is asking the wrong question. With the governments of major economies like China, Russia and Japan putting support and cash into nuclear technologies, the power plants are here to stay, he believes. "There's going to be a thousand reactors built over the next 50 years," he said. "The question is: Are we building them, or are we just importing them?"

### at: not safe enough

#### Light water reactors inevitable globally---it will be unsafe and cause proliferation absent renewed US leadership ---only we solve

Loudermilk 11—Research Associate for the Energy & Environmental Security Policy program with the Institute for National Strategic Studies at National Defense University (Micah, Small Nuclear Reactors and US Energy Security: Concepts, Capabilities, and Costs, www.ensec.org/index.php?option=com\_content&view=article&id=314:small-nuclear-reactors-and-us-energy-security-concepts-capabilities-and-costs&catid=116:content0411&Itemid=375)

Reactor safety itself notwithstanding, many argue that the scattering of small reactors around the world would invariably lead to increased proliferation problems as nuclear technology and know-how disseminates around the world. Lost in the argument is the fact that this stance assumes that US decisions on advancing nuclear technology color the world as a whole. In reality, regardless of the US commitment to or abandonment of nuclear energy technology, **many countries** (notably China) **are blazing ahead** with research and construction, with 55 plants currently under construction around the world—though Fukushima may cause a temporary lull.¶ Since Three Mile Island, the US share of the global nuclear energy trade has declined precipitously as talent and technology begin to concentrate in countries more committed to nuclear power. On the small reactor front, more than 20 countries are examining the technology and the IAEA estimates that 40-100 small reactors will be in operation by 2030. Without US leadership, new nations seek to acquire nuclear technology **turn to countries other than the US who may not share a deep commitment to reactor safety and nonproliferation objectives**. **Strong US leadership globally on nonproliferation requires a vibrant American nuclear industry.** This will enable the US to set and enforce standards on nuclear agreements, spent fuel reprocessing, and developing reactor technologies.

#### Solves the international spillover arguments regardless—the thing Iran wants is size, not thorium

Ferguson 10—President of the Federation of American Scientists. Adjunct Professor in the Security Studies Program at Georgetown University and an Adjunct Lecturer in the National Security Studies Program at the Johns Hopkins University. (Charles, Testimony before the House Committee on Science and Technology for the hearing on Charting the Course for American Nuclear Technology: Evaluating the Department of Energy’s Nuclear Energy Research and Development Roadmap, http://gop.science.house.gov/Media/hearings/full10/may19/Ferguson.pdf)

The United States and several other countries have considerable experience in building and operating small and medium power reactors. The U.S. Navy, for example, has used small power reactors since the 1950s to provide propulsion and electrical power for submarines, aircraft carriers, and some other surface warships. China, France, Russia, and the United Kingdom have also developed nuclear powered naval vessels that use small reactors. Notably, Russia has deployed its KLT-40S and similarly designed small power reactors on icebreakers and has in recent years proposed building and selling barges that would carry these types of reactors for use in sea-side communities throughout the world. China has already exported small and medium power reactors. In 1991, China began building a reactor in Pakistan and started constructing a second reactor there in 2005. In the wake of the U.S.-India nuclear deal, Beijing has recently reached agreement with Islamabad to build two additional reactors rated at 650 MWe.2¶ One of the unintended consequences of more than 30 years of sanctions on India’s nuclear program is that India had concentrated its domestic nuclear industry on building small and medium power reactors based on Canadian pressurized heavy water technology, or Candu-type reactors. Pressurized heavy water reactors (PHWRs) pose proliferation concerns because they can be readily operated in a mode optimal for producing weapons-grade plutonium and can be refueled during power operations. Online refueling makes it exceedingly difficult to determine when refueling is occurring based solely on outside observations, for example, through satellite monitoring of the plant’s operations. Thus, the chances for potential diversion of fissile material increase. This scenario for misuse underscores the need for more frequent inspections of these facilities. But the limited resources of the International Atomic Energy Agency have resulted in a rate of inspections that are too infrequent to detect a diversion of a weapon’s worth of material. 3¶ The opening of the international nuclear market to India may lead to further spread of PHWR technologies to more states. For example, last year, the Nuclear Power Corporation of India, Ltd. (NPCIL) expressed interest in selling PHWRs to Malaysia. 4 NPCIL is the only global manufacturer of 220 MWe PHWRs. New Delhi favors Southto-South cooperation; consequently developing states in Southeast Asia, sub-Saharan Africa, and South America could become recipients of these technologies in the coming years to next few decades. 5 Many of these countries would opt for small and medium power reactors because their electrical grids do not presently have the capacity to support large power reactors and they would likely not have the financial ability to purchase large reactors. ¶ What are the implications for the United States of Chinese and Indian efforts to sell small and medium power reactors? Because China and India already have the manufacturing and marketing capability for these reactors, the United States faces an economically competitive disadvantage. Because the United States has yet to license such reactors for domestic use, it has placed itself at an additional market disadvantage. By the time the United States has licensed such reactors, China and India as well as other competitors may have established a strong hold on this emerging market. ¶ The U.S. Nuclear Regulatory Commission cautioned on December 15, 2008 that the “licensing of new, small modular reactors is not just around the corner. The NRC’s attention and resources now are focused on the large-scale reactors being proposed to serve millions of Americans, rather than smaller devices with both limited power production and possible industrial process applications.” The NRC’s statement further underscored that “examining proposals for radically different technology will likely require an exhaustive review” … before “such time as there is a formal proposal, the NRC will, as directed by Congress, continue to devote the majority of its resources to addressing the current technology base.” 6 Earlier this year, the NRC devoted consideration to presentations on small modular reactors from the Nuclear Energy Institute, the Department of Energy, and the Rural Electric Cooperative Association among other stakeholders. 7 At least seven vendors have proposed that their designs receive attention from the NRC. 8¶ Given the differences in design philosophy among these vendors and the fact that none of these designs have penetrated the commercial market, it is too soon to tell which, if any, will emerge as market champions. Nonetheless, because of the early stage in development, the United States has an opportunity to state clearly the criteria for successful use of SMRs. But because of the head start of China and India, the United States should not procrastinate and should take a leadership role in setting the standards for safe, secure, and proliferation-resistant SMRs that can compete in the market. ¶ Several years ago, the United States sponsored assessments to determine these criteria. 9 While the Platonic ideal for small modular reactors will likely not be realized, it is worth specifying what such an SMR would be. N. W. Brown and J. A. Hasberger of the Lawrence Livermore National Laboratory assessed that reactors in developing countries must: ¶ “achieve reliably safe operation with a minimum of maintenance and supporting infrastructure; ¶ offer economic competitiveness with alternative energy sources available to the candidate sites; ¶ demonstrate significant improvements in proliferation resistance relative to existing reactor systems.”10¶ Pointing to the available technologies at that time from Argentina, China, and Russia, they determined that “these countries tend to focus on the development of the reactor without integrated considerations of the overall fuel cycle, proliferation, or waste issues.” They emphasized that what is required for successful development of an SMR is “a comprehensive systems approach that considers all aspects of manufacturing, transportation, operation, and ultimate disposal.”

#### Conventional SMRs are safe---passive mechanisms, less radiation, underground and prolif-resistant

Cunningham 12 Nick, Policy Analyst for Energy and Climate at the American Security Project, "Small Modular Reactors: A Possible Path Forward for Nuclear Power", October, americansecurityproject.org/ASP%20Reports/Ref%200087%20-%20Small%20Modular%20Reactors.pdf

Reduced Safety and Weapons Proliferation Concerns¶ SMRs can offer improved safety and security over conventional large reactors because of specific design features inherent to small reactors. First, one danger from nuclear power plants is the radiation from the reactor core. SMRs offer a reduction in danger from radiation because a smaller reactor core produces less radiation. 13¶ Second, due to their small size, SMRs are better able to incorporate passive safety features – those that do not require human or electronic actions to function properly. 14 These include cooling systems that use gravity instead of relying on access to power, natural convection systems, and passive heat removal. 15 For example, in the event something goes wrong, Westinghouse’s SMR is designed to keep the reactor cool for several days without the need for operators or power. 16 While the latest reactor designs are incorporating passive safety features, including for large reactors, passive safety features are inherently easier with small designs due to a smaller reactor core. ¶ Third, SMRs can benefit from a simplification of design, using less components, resulting in a more compact reactor. 17 SMR designs can eliminate the need for coolant pipes, which are considered the most significant safety challenge during the development of nuclear power plants. 18 An integral design, in which the primary reactor core, the steam generator, and the pressurizer are incorporated into a single common pressure vessel, is only possible in a small design. 19 In comparison, large reactors have components outside the containment vessel, increasing the chance of an accident. ¶ Fourth, unlike large reactors, SMRs can be installed underground, reducing the vulnerability to a terrorist attack or natural disaster. 20 A design from Gen4, a nuclear reactor vendor, seals off the reactor underground. This allows for it to never be opened once it is installed, enhancing proliferation resistance. 21 It would also operate for 10 years before refueling would be needed, compared to conventional large reactors that require refueling every 18-24 months. 22

#### SMRs are awesome---feasible, cheaper, safer and solve other nuclear downsides

Ringle 10 John, Professor Emeritus of Nuclear Engineering at Oregon State University, "Reintroduction of reactors in US a major win", November 13, robertmayer.wordpress.com/2010/11/21/reintroduction-of-reactors-in-us-a-major-win/

Small nuclear reactors will probably be the mechanism that ushers in nuclear power’s renaissance in the U.S.¶ Nuclear plants currently supply about 20 percent of the nation’s electricity and more than 70 percent of our carbon-free energy. But large nuclear plants cost $8 billion to $10 billion and utilities are having second thoughts about how to finance these plants.¶ A small modular reactor (SMR) has several advantages over the conventional 1,000-megawatt plant:¶ 1. It ranges in size from 25 to 140 megawatts, hence only costs about a tenth as much as a large plant.¶ 2. It uses a cookie-cutter standardized design to reduce construction costs and can be built in a factory and shipped to the site by truck, railroad or barge.¶ 3. The major parts can be built in U.S. factories, unlike some parts for the larger reactors that must be fabricated overseas.¶ 4. Because of the factory-line production, the SMR could be built in three years with one-third of the workforce of a large plant.¶ 5. More than one SMR could be clustered together to form a larger power plant complex. This provides versatility in operation, particularly in connection with large wind farms. With the variability of wind, one or more SMRs could be run or shut down to provide a constant base load supply of electricity.¶ 6. A cluster of SMRs should be very reliable. One unit could be taken out of service for maintenance or repair without affecting the operation of the other units. And since they are all of a common design, replacement parts could satisfy all units. France has already proved the reliability of standardized plants.¶ At least half a dozen companies are developing SMRs, including NuScale in Oregon. NuScale is American-owned and its 45-megawatt design has some unique features. It is inherently safe. It could be located partially or totally below ground, and with its natural convection cooling system, it does not rely on an elaborate system of pumps and valves to provide safety. There is no scenario in which a loss-of-coolant accident could occur.

#### SMRs solve accidents

**Wheeler 10** (John Wheeler, Workforce Planning Manager for Entergy. He also is an American Nuclear Society member, November 2010, “Small modular reactors may offer significant safety & security advantages,” http://thisweekinnuclear.com/?p=1193)

The goal of nuclear plant emergency planning is to protect people from exposure to radiation they might receive during a reactor accident. That radiation exposure would come (mostly) from radioactive gas released into the air from a damaged nuclear plant. There are three physical barriers in all modern nuclear plants that keep radioactive gas inside the reactor: the metal cladding that encases the ceramic uranium fuel pellets, the thick steel reactor vessel and piping and that contains the reactor and coolant, and the concrete and steel containment building that encloses the reactor. For people to be in danger from a reactor accident first the fuel must overheat to create the radioactive gas. Then all three barriers (clad, system piping, and containment building) must be breached to provide a pathway for the radioactive gas to reach the atmosphere. Finally, there has to be a pressure difference to push the gas out of the plant and into the atmosphere. In water cooled reactors like most in use today, the hot water turns to steam and steam pressure builds up inside the containment. If the containment is breached this pressure pushes the radioactive gas through the hole to the air outside.

With this in mind, small modular reactors offer **several big advantages** that make them **safer**:

They are smaller, so the amount of radioactivity contained in each reactor is less. So much less in fact, that even if the worse case reactor accident occurs, the amount of radioactive material released **would not pose a risk to the public**. In nuclear lingo we say SMRs have a smaller “source term.” This source term is so small we can design the plant and emergency systems to virtually eliminate the need for emergency actions beyond the physical site boundaries. Then, by controlling access to the site boundary, we can eliminate the need for off-site protective actions (like sheltering or evacuations).

These smaller reactors contain less nuclear fuel. This smaller amount of fuel (with passive cooling I’ll mention in a minute) slows down the progression of reactor accidents. This slower progression gives operators more time to take action to keep the reactor cool. Where operators in large reactors have minutes or hours to react to events, operators of SMRs may have hours or even days. This means the chance of a reactor damaging accident is **very, very remote**.

Even better, most SMRs are small enough that they cannot over heat and melt down. They get all the cooling they need from air circulating around the reactor. This is a big deal because if SMRs can’t melt down, then they can’t release radioactive gas that would pose a risk to the public. Again, this means the need for external emergency actions is virtually eliminated.

Also, some SMRs are not water cooled; they use gas, liquid salt, or liquid metal coolants that operate at low pressures. This lower operating pressure means that if radioactive gases build up inside the containment building there is less pressure to push the gas out and into the air. If there is no pressure to push radioactive gas into the environment and all of it stays inside the plant, then it poses no risk to the public.

SMRs are small enough to be built underground. This means they will have a smaller physical footprint that will be easier to defend against physical attacks. This provides additional benefits of lower construction costs because earth, concrete and steel are less costly than elaborate security systems in use today, and lower operating costs (a smaller footprint means a smaller security force).

### at: perm do both

#### LFTRs would win out

Energy From Thorium, 2012, “The Liquid Flouride Thorium Reactor,” http://energyfromthorium.com/lftradsrisks.html

Cost of Thorium Reactors--Even though a full-scale LFTR has never been built, we expect the lifecycle cost of thorium reactors could be at least 30% to 50% less than equivalent-power uranium-based LWRs. Nevertheless, the engineering, fabrication and licensing of any energy-dense endeavourer is never certain and subject to many outside factors. Because of the various advantages afforded by the LFTR technology, we expect there will be a reduced regulatory burden, which would lessen costs and accelerate startups. For full-scale construction of LFTRs, factory-built modular construction can be used to provide scalable reactors from 100-kilowatt to multi-gigawatt production. This flexibility in site location eliminates the largest risk facing new U.S. commercial power plants today. Further, LFTRs have operational cost advantages over both types of reactors currently licensed. Unlike pressurized water reactors, LFTRs will not have to be shut down for extensive periods for refueling. Unlike boiling water reactors, LFTRs do not radioactively contaminate the turbines used for electrical generation, which should translate into significantly reduced operational and maintenance costs for this portion of the power plant and reduced amounts of low-level waste for end-of-life disposal.

#### Competing designs create market confusion and jack resources to deploy effectively

Daniel Ingersoll 9, senior program manager in Oak Ridge National Laboratory's Reactors and Nuclear Systems Division, 2009, “Deliberately small reactors and the second nuclear era,” Progress in Nuclear Energy, Vol. 51, 589–60

3

In addition to the technical hurdles just described, a number of non-technical challenges also exist for the deployment of new SMR designs. First, there are too many competing designs. The number of options creates confusion in the market and dilutes the limited ﬁnancial and human resources available in the nuclear community. Again, we must learn from mistakes of the ﬁrst nuclear era and focus our attention on the few most promising designs with an eye toward standardization.

#### Mutually exclusive w/ waste plank

UCS 11 – Union of Concerned Scientists (“Reprocessing and Nuclear Terrorism,” March 21, http://www.ucsusa.org/nuclear\_power/nuclear\_power\_risk/nuclear\_proliferation\_and\_terrorism/reprocessing-and-nuclear.html)

Over three decades ago, the United States decided on nuclear non-proliferation grounds not to reprocess the spent fuel generated by civilian nuclear power plants, but instead to directly dispose of it in a geologic repository. However, the United States does not yet have a geologic repository and policymakers periodically propose that the United States begin to reprocess its spent fuel. Reprocessing existing U.S. spent fuel would produce hundreds of tons of separated plutonium that would be vulnerable to diversion or theft by terrorists.¶ Reprocessing would increase the risk of nuclear terrorism¶ From the perspective of terrorists seeking a nuclear weapon, reprocessing changes plutonium from a form in which it is highly radioactive and nearly impossible to steal to one in which it is not radioactive and could be stolen surreptitiously by an insider, or taken by force during its routine transportation.¶ This situation is made worse by the fact that the theft of enough plutonium to build several nuclear weapons could remain undetected for many years at a reprocessing facility. In particular, at commercial scale "bulk-handling" reprocessing facilities and fuel fabrication plants, which annually handle from several tons to many tens of tons of separated plutonium in solution or powder form, it is essentially impossible to account for the plutonium throughput to within tens or even hundreds of kilograms in a timely manner, making it feasible that the theft of this quantity of plutonium could go undetected for many years. Since a relatively simple implosion nuclear weapon can be made with roughly six kilograms of plutonium, the uncertainty in the annual amount of plutonium processed is quite significant, and could lead to undetected acquisition of weapon-usable materials by states or terrorists.¶ This is not just a theoretical problem: two striking examples have occurred in Japan. In 1994, it was revealed that over five years of operation, the total amount of plutonium unaccounted for at the Plutonium Fuel Production Facility in Tokai-mura had grown to seventy kilograms—enough for some 11 nuclear weapons. Ultimately, in 1996 it was determined that most of the missing material was in dust that accumulated on the equipment inside the facility. Had the material instead been stolen, the theft would have remained undetected for years—more than enough time for terrorists to convert the material into crude nuclear weapons.¶ Similar problems occurred at the reprocessing plant in Tokai-mura, which started operation in 1977. Japanese officials acknowledged in January 2003 that it took a 15-year investigation to account for a more than 200-kilogram shortfall in plutonium at the reprocessing plant. This amount constitutes about three percent of the total amount of plutonium separated by the plant during 25 years of operation, and is enough for some thirty nuclear weapons.¶ In contrast, in a "once-through" nuclear fuel cycle, the spent fuel is left intact and simply stored once it is removed from the reactor, for ultimate disposal in a repository. In this case the plutonium remains imbedded in the highly radioactive spent fuel, which is thus "self-protected" from theft. Since anyone within a meter of spent fuel that was less than 50 years old would receive a deadly dose in less than 30 minutes, even terrorists willing to die for their cause would not have enough time to do anything useful.¶ Of course, the size and weight of the spent fuel assemblies (typically 10 feet long, and fifteen hundred pounds) also makes them difficult to steal. Moreover, it is straightforward to account for the number of fuel assemblies.¶ In sum, a closed nuclear fuel cycle entails the handling and transportation of large amounts of nuclear bomb-making material. As discussed above, during much of this process, the material cannot be accounted for precisely enough to ensure that an amount adequate for one or more nuclear weapons has not been stolen. This situation presents numerous opportunities for terrorists to acquire the material they need to build a nuclear weapon.¶ We will be much safer if plutonium remains within the highly radioactive spent fuel that is eventually sealed in a secure geologic repository than if plutonium is extracted from spent fuel, fabricated into fresh fuel, and shipped to nuclear reactors around the country, where it would be vulnerable to diversion or theft at every stage.

### oview

#### Korea scenario alone outweighs on magnitude

Hayes 10 Peter Hayes, \*Executive Director of the Nautilus Institute for Security and Sustainable Development, AND, Michael Hamel-Green, \*\* Executive Dean of the Faculty of Arts, Education and Human Development act Victoria University (1/5/10, Executive Dean at Victoria, “The Path Not Taken, the Way Still Open: Denuclearizing the Korean Peninsula and Northeast Asia,” http://www.nautilus.org/fora/security/10001HayesHamalGreen.pdf

But the catastrophe within the region would not be the only outcome. New research indicates that even a limited nuclear war in the region would rearrange our global climate far more quickly than global warming. Westberg draws attention to new studies modelling the effects of even a limited nuclear exchange involving approximately 100 Hiroshima-sized 15 kt bombs2 (by comparison it should be noted that the United States currently deploys warheads in the range 100 to 477 kt, that is, individual warheads equivalent in yield to a range of 6 to 32 Hiroshimas).The studies indicate that the soot from the fires produced would lead to a decrease in global temperature by 1.25 degrees Celsius for a period of 6-8 years.3 In Westberg’s view:  That is not global winter, but the nuclear darkness will cause a deeper drop in temperature than at any time during the last 1000 years. The temperature over the continents would decrease substantially more than the global average. A decrease in rainfall over the continents would also follow…The period of nuclear darkness will cause much greater decrease in grain production than 5% and it will continue for many years...hundreds of millions of people will die from hunger…To make matters even worse, such amounts of smoke injected into the stratosphere would cause a huge reduction in the Earth’s protective ozone.4 These, of course, are not the only consequences. Reactors might also be targeted, causing further mayhem and downwind radiation effects, superimposed on a smoking, radiating ruin left by nuclear next-use. Millions of refugees would flee the affected regions. The direct impacts, and the follow-on impacts on the global economy via ecological and food insecurity, could make the present global financial crisis pale by comparison. How the great powers, especially the nuclear weapons states respond to such a crisis, and in particular, whether nuclear weapons are used in response to nuclear first-use, could make or break the global non proliferation and disarmament regimes. There could be many unanticipated impacts on regional and global security relationships5, with subsequent nuclear breakout and geopolitical turbulence, including possible loss-of-control over fissile material or warheads in the chaos of nuclear war, and aftermath chain-reaction affects involving other potential proliferant states. The Korean nuclear proliferation issue is not just a regional threat but a global one that warrants priority consideration from the international community.

### uniquenss

#### Nothing has changed—negotiation was postponed—only a risk they inject new controversy

**Varnum 11/27**/2012 – Research Associate and Adjunct Professor, Monterey Institute of International Studies (Jessica, NTI, “U.S. Nuclear Cooperation as Nonproliferation: Reforms, or the Devil You Know?”, http://www.nti.org/analysis/articles/us-nuclear-cooperation-nonproliferation-reforms-or-devil-you-know/, WEA)

The United States and South Korea recently postponed further negotiation of a controversial bilateral nuclear trade agreement set to expire in March 2014, pending the results of elections in both countries.[1] The U.S. government supports a renewal agreement consistent with the current 1974 text; Seoul, however, maintains that as an advanced nuclear state and an emerging nuclear supplier it should be permitted to utilize U.S-obligated nuclear materials and technologies in an indigenous enrichment and reprocessingprogram.[2] After December's ROK presidential election, both governments will have to move quickly to find common ground on what has become, increasingly, a zero-sum negotiation.[3]

The U.S.-South Korean agreement is only one of many complex nuclear cooperation negotiations the Obama Administration will face in the next four years. On its docket are a large number of new or renewal 123 agreements, named after Section 123 of the Atomic Energy Act of 1954 governing the conditions for nuclear cooperation with foreign partners.[4] Most prominently, these include renewal agreements with South Korea, China, and Taiwan, and new agreements with Jordan,Vietnam, and Saudi Arabia. All will face the intensified congressional and international scrutiny that began with the U.S. government's conclusion of two very different 123 agreements in 2008 and 2009, the former a deal with India that required a special exemption from Nuclear Suppliers Groupnonproliferation rules, and the latter the so-called nonproliferation "Gold Standard" agreement under which the United Arab Emirates (UAE) voluntarily forswore enrichment and reprocessing (ENR).[5]

#### CP remedies 100% of this link turn – we access all the same internal links to prolif

**Miller 12** - et al – former associate director of the Nuclear Security Science and Policy Institute at Texas A %26 M University as well as adjunct professor. He was a co-leader of the small team that successfully proposed establishing the . Former assistant secretary for nuclear energy at the U.S. Department of Energy under Obama. Worked at Los Alamos National Laboratory where he served for 27 years as a computational physics researcher and senior administrator (A Report of the Bipartisan Policy Center’s Nuclear Initiative; Co-chaired by Senator Pete Domenici and Dr. Warren F. Miller, July 2012, Maintaining U.S. Leadership in Global Nuclear Energy Markets, bipartisanpolicy.org/sites/default/files/Leadership%20in%20Nuclear%20Energy%20Markets.pdf)

Strategic Goal: Continued strong U.S. leadership in global nuclear security matters is central to protecting our national security interests. In particular, U.S. **leadership in nuclear tech**nology and operations **can strengthen U.S. influence with respect to other countries’ nuclear programs and the evolution of the international nonproliferation regime**, while also supporting U.S. competitiveness in a major export market. ¶ Nuclear power technologies are distinct from other potential exports in energy or in other sectors where America’s competitive advantage may also be declining. Because of the potential link between commercial technology and weapons development, nuclear power is directly linked to national security concerns, including the threat of proliferation. Although reactors themselves do not pose significant proliferation risks, both uraniumenrichment and spent fuel–processing technologies can be misused for military purposes. **If U.S. nuclear energy leadership continues to diminish, our nation will be facing a situation in which decisions** **about** the technological capabilities and location of **fuel-cycle** facilities **throughout the world will be made without** significant **U.S.** participation. **Leadership is important in both commercial and diplomatic arenas, and it requires a vibrant domestic industry**; an effective, independent regulator; access to competitive and innovative technologies and services; and the ability to offer practical solutions to safety, security, and nonproliferation challenges (an international fuel bank, for example, could help address concerns about the proliferation of uranium-enrichment capabilities).¶ COMMERCIAL NUCLEAR OPERATIONS¶ As the world’s largest commercial nuclear operator and dominant weapons state, the United States has traditionally been the clear leader on international nuclear issues. Today, the United States still accounts for approximately onequarter of commercial nuclear reactors in operation around the world and one-third of global nuclear generation. 33 This position is likely to shift in coming decades, as new nuclear investments go forward in other parts of the world while slowing or halting in the United States. In past decades, the United States was also a significant exporter of nuclear materials and technologies, but this dominance too has slowly declined.¶ At present, however, the U.S. safety and security infrastructure and regulatory framework remain without peer and U.S. expertise and guidance on operational and regulatory issues continues to be sought around the world. The domestic nuclear industry established the INPO in the wake of the Three Mile Island accident in 1979 in a collective effort to hold all industry players accountable to the highest standards for safe and reliable commercial operations. Similarly, the NRC is seen as the gold standard for commercial nuclear regulation. As long as other countries seek to learn from the experience and expertise of U.S. firms and regulators, the United States will enjoy greater access to international nuclear programs. A **substantial reduction in domestic nuclear energy activities could erode U.S. international standing**.¶ COMPETITIVE COMMERCIAL NUCLEAR EXPORTS¶ As an active participant in commercial markets, the United States has considerable leverage internationally through the 123 Agreements (in reference to Section 123 of the Atomic energy Act) and Consent Rights on nuclear technologies exported by the U.S. nuclear industry. These mechanisms provide a direct and effective source of leverage over other countries’ fuel-cycle decisions. U.S. **diplomatic influence is also important, but absent an active role in commercial markets, it may not be sufficient** to project U.S. influence and interests with respect to nuclear nonproliferation around the world. At an October 2011 Nuclear Initiative workshop on “effective Approaches for U.S. Participation in a More Secure Global Nuclear Market,” Deputy Secretary of energy Daniel B. Poneman framed commerce and security not as competing objectives but as “inextricably intertwined.” 34¶ He also highlighted several ways in which a robust domestic nuclear energy industry can further our country’s nonproliferation goals. Deputy Secretary Poneman emphasized the importance of U.S. leadership not only in the commercial marketplace but in international nonproliferation organizations like the International Atomic energy Agency (IAeA) as well.¶ In addition, BPC’s Nuclear Initiative recognizes that a nuclear accident is a low-probability event that would have high consequences regionally or globally. Many countries that have expressed interest in, or the intention to, develop domestic nuclear power lack important infrastructure, education, and regulatory institutions. We believe that, if these programs move forward, the United States has a critical commercial and advisory role to play.¶ However, domestic exporters of U.S. nuclear technology, fuels, and services face a truly global and highly competitive market. Commercial nuclear technology is now available from a variety of suppliers, and there are many more companies, several of which have the direct backing of their country’s government, competing with U.S. firms. Industry and other stakeholders believe that U.S. nuclear technology companies are at a competitive disadvantage in international markets due to complex and overlapping federal regulations. Several presenters at the BPC Nuclear Initiative event noted that multiple federal agencies, including the Department of Commerce, DOe, and the Department of State have jurisdiction over commercial nuclear trade, global safety and security, and nonproliferation. ¶ In an attempt to ameliorate current competitive disadvantages, the Obama administration recently created a new position within the National Security Council to coordinate civilian nuclear policy. We support the creation of this new position to improve coordination of executive branch policy for nuclear energy policy and international affairs. We believe continued efforts to improve coordination between government and industry stakeholders and to more efficiently apply federal export regulations will allow U.S. companies to compete more effectively in the global nuclear marketplace. ¶ LEADERSHIP ON INTERNATIONAL ISSUES RELATED TO THE NUCLEAR FUEL CYCLE ¶ Leadership in technological and policy developments related to the management of the nuclear fuel cycle is another important component of U.S. leadership on nuclear issues more broadly. As discussed above, several countries have expressed interest in, or the intent to become, new entrants in the use of commercial nuclear power. The spread of nuclear technologies and knowledge presents inherent proliferation risks, and technologies and expertise related to fuel enrichment and reprocessing are especially sensitive. We believe that existing domestic and international policies to discourage the spread of fuel-cycle technologies are sound and we support efforts to maintain and expand these policies. We also believe that international fuel assurances and spent fuel take-back capabilities would give new-entrant countries a powerful incentive to forgo their own enrichment and reprocessing activities. This is particularly true given the fact that most current and proposed national nuclear energy programs are too small to justify indigenous fuel-cycle programs, at least in economic terms. 35¶ For many years, the United States and other countries and organizations, including the IAeA, have explored options for providing an assured nuclear fuel supply to countries that choose not to develop their own enrichment capacities. We strongly support continued U.S. leadership to establish multinational fuel-cycle facilities that would allow newentrant countries to reliably develop domestic nuclear industries without increasing proliferation risks. In addition, the ability to offer full fuel-cycle services would enhance the competitiveness of U.S.-based nuclear energy firms as new entrants look for more comprehensive service packages beyond reactor design and construction.¶ In particular, the ability to take advantage of spent fuel take-back services may provide a strong incentive for countries to participate in multinational fuel arrangements and could allow for more secure, long-term stewardship of spent fuel. Of course, to offer this service, the United States and its partners would have to develop effective spent fuel management and disposal capabilities of their own.¶ Strategic Goal: Historically, the United States has been a leader in nuclear technology research and commercialization. To extend this tradition and assure further innovation, the United States must continue to support research and development efforts within the nuclear industry, the national labs, and U.S. universities.¶ We believe that progress currently underway in a few technical areas will be especially helpful in allowing the United States to maintain its leadership role in nuclear technology and operations. In particular, **we believe** that **SMRs represent an exciting frontier for nuclear technology** and a promising opportunity to demonstrate U.S.-based scientific capability and manufacturing potential. 36¶ As part of our event series, the Nuclear Initiative convened a diverse group of expert stakeholders to discuss the technical potential and commercial risks associated with SMRs. Assistant Secretary for Nuclear energy Lyons discussed the SMR Licensing Technical Support Program, a five-year industry cost-sharing effort to achieve design certification for two SMR designs and to support early stages of deployment. 37 ¶ DOE’s projected budget for this program, which has received considerable bipartisan support in Congress, is $452 million over five years. These funds will be leveraged to raise additional contributions from industry. 38¶ We believe the SMR program offers the best opportunity, building on the successful Nuclear Power 2010 program, to commercialize innovative nuclear technologies, and we strongly encourage continued support for it and related research, development, and deployment (RD&D) programs.

### link

#### Even if they win their tech is prolif resistant, it still links – perception of support for reprocessing will spillover, undermines US credibility, and builds international expertise that causes prolif

Thomas B. Cochran, dir. Nuclear Program @ Nat. Resources Defense Council, 3-26-2004, “Critique of “The Future of Nuclear Power: An Interdisciplinary MIT Study””, http://www.c2es.org/docUploads/10-50\_Cochran.pdf

In addition, the MIT Study recognizes that the closed fuel cycle represents a serious proliferation threat when undertaken in any number of non-weapon states, e.g., Iraq, Iran, North Korea, and even Russia. Despite the acknowledgement of poor economic prospects, no significant waste management advantages and high proliferation risks associated with closed fuel cycles, the MIT Study unfortunately leaves the door open to develop new reprocessing technologies. On the other hand, we [the MIT Study group] support modest laboratory scale research and analysis on new separation methods with the objective to learn about separation methods that are less costly and more proliferation resistant. There has been little exploration in the United States of alternatives to PUREX and pyro-processing since their invention decades ago with entirely different purposes in mind: obtaining weapons usable material and reprocessing metal fuel, respectively. We note however that there is considerable skepticism for even this modest approach, because some see any U.S. work on reprocessing sending the wrong signal to other nations about the credibility of our expressed attitude toward the proliferation risks of reprocessing, and the concern that DOE will move from analysis and research to development before the technical basis for such action has been developed. We propose that this program begin at a modest scale, reaching $10 million per year in about five years. (MIT Study, p. 92) Instead of curbing DOE’s appetite for promoting technologies that are both dangerous and uneconomical, this MIT Study recommendation likely will be used by DOE to justify its Advanced Fuel Cycle Initiative (AFCI). The DOE FY 2004 budget for the AFCI is $63 million—over six times what the MIT recommends be spent in five years. The AFCI is coordinated with DOE’s Generation IV program to develop new reactor concepts for possible introduction in the 2030 to 2050 time period. Last year DOE organized the Generation-IV International Forum, an effort by 10 countries to jointly develop six nuclear energy systems, including several fast reactor concepts that require closed fuel cycles. The countries included five non-weapon states that formerly had clandestine nuclear weapon programs, namely, South Africa, Argentina, Brazil, South Korea and Switzerland. Although the MIT Study recommends that “[t]he DOE R&D program should be realigned to focus on the open, once-through fuel cycle” (MIT Study, p. x), I fear the recommendation to engage in modest R&D on closed fuel cycles will be used to bolster the DOE AFCI effort. This will promote in non-weapon states, including states that in the past had clandestine nuclear weapon programs, the construction of hot cells for reprocessing R&D and training of cadres of experts in plutonium chemistry and metallurgy. This DOE effort is clearly a threat to U.S. national security. Because closed fuel cycles are so uneconomical, U.S. government sponsored research on closed fuel cycles is not likely to lead to their adoption. Consequently, in the next fifty years I believe U.S. nuclear plants will stick with the open fuel cycle.

#### Plutonium link – even if LFTR’s don’t actually reprocess, even using them to eliminate plutonium stockpiles would be perceived as general US acceptance of ALL reprocessing

Carah Ong, Nuclear Age Peace Foundation’s Advocacy and Research Director, May 2005, “Reprocessing and Proliferation Dangers,” http://www.wagingpeace.org/articles/2005/05/00\_ong\_reprocessing-proliferation-dangers.pdf

Reprocessing is contrary to national and international efforts to prevent the proliferation of nuclear materials to other countries or terrorists that could use them to make nuclear weapons or “dirty bombs.” If the US pursues reprocessing, it will undermine international efforts to discourage other countries – including Iran and other states of proliferation concern – from building their own reprocessing and enrichment facilities. As a 1994 report by the National Academy of Sciences (NAS) states, “[P]olicymakers will have to take into account the fact that choosing to use weapons plutonium in reactors would be perceived by some as representing generalized U.S. approval of separated plutonium fuel cycles, thereby compromising the ability of the U.S. government to oppose such fuel cycles elsewhere.” 2 Reprocessing is the only way of producing plutonium for use in nuclear weapons. Now nuclear weapons states, India and Pakistan both pursued plutonium programs that they justified as a legitimate part of their civil nuclear programs. North Korea also claimed for years that its reprocessing plant at Yongbyon was intended to separate plutonium for use in Mixed Oxide fuel for civilian nuclear power reactors. Today, experts believe North Korea has enough plutonium for some six to eight nuclear warheads. At the end of 2003, the world’s stockpiles of separated civilian plutonium stood at 235 metric tons, enough to make some 30,000 nuclear weapons, each with the destructive power comparable to the Hiroshima and Nagasaki bombs. Despite assertions to the contrary, terrorists could use civil plutonium to make potent nuclear weapons with a destructive power equivalent to at least 1,000 tons of TNT. Respected voices within the UK have warned of the dangers from Britain’s growing stockpile of separated plutonium. Perhaps most notably, in 1998, Britain’s Royal Society warned that “the chance that the stocks of plutonium might, at some stage, be accessed for illicit weapons production is of extreme concern.” 3 As a Rand Corporation report states, “It is critical that countries pay attention to the proliferation threat from the civilian side if they want to maximize the non-proliferation value of dismantling U.S. nuclear weapons and those of the FSRs (former Soviet republics). If countries ignore the civilian threat, they can compound the problem by making wrong choices in how to deal with military materials.” 4 Reprocessing is not proliferation resistant. The US is currently researching and developing a technology known as Uranium Extraction Plus or UREX Plus. In a testimony on March 17, 2005 before the Energy and Water Appropriations Subcommittee, Bill Magwood, the Director of the Office of Nuclear Energy, Science and Technology at the US Department of Energy, stated, “One test that it [UREX Plus] has not yet passed is the proliferation resistance test.” In the same testimony, Magwood also stated, “[W]e're not sure that it's possible to use this chemical technology to separate the plutonium in combination with a few other things, in a fashion that will make it both proliferation resistant and economically viable.” Recommendation Taking into account the previous Bush administration’s decision to phase out reprocessing, rather than taking a do-as-I-say-not-as-I-do approach to managing nuclear materials, the US should take the lead in demonstrating to the world that nuclear materials can be safely managed without separating weapons-usable materials as a critical step in curtailing the spread of nuclear weapons.

#### Signal – hardline on domestic reprocessing sends a clear signal that checks ENR spread

Harrell ’11 – research associate at the Project on Managing the Atom at Harvard University's Belfer Center for Science and International Affairs (Eben, “Bury Our Nuclear Waste — Before It Buries Us,” August 15, Time Magazine, http://www.time.com/time/health/article/0,8599,2086917,00.html)

The Blue Ribbon Commission doesn't reach a conclusion on whether the U.S. should pursue reprocessing, arguing that consensus on the issue would be "premature." That is a mistake. Reprocessing is a manifestly dangerous technology. In the 1970s, the U.S. renounced commercial reprocessing at home and the spread of the technology abroad because of concerns that it would lead to weapons proliferation. It should not reverse this policy. The spread of reprocessing to countries in unstable or nuclear-armed regions gives them the infrastructure and expertise needed to quickly develop a bomb should they choose to do so. (And don't think safeguards imposed by the International Atomic Energy Agency can stop them. Commercial-scale reprocessing facilities handle so much plutonium that it is almost impossible for inspectors to keep track of it all.) The U.S. must send a message: if the country with the world's largest number of nuclear reactors renounces reprocessing, it delivers a clear signal to countries newly interested in nuclear power that the process is not necessary for the future of the nuclear industry.

#### Credibility – spinning around it is seen as a bad faith gesture

UCS ’11 – Union of Concerned Scientists (“Nuclear Reprocessing: Dangerous, Dirty, and Expensive,” April 5, http://www.ucsusa.org/nuclear\_power/nuclear\_power\_risk/nuclear\_proliferation\_and\_terrorism/nuclear-reprocessing.html)

Reprocessing would increase the ease of nuclear proliferation.¶ U.S. reprocessing would undermine the U.S. goal of halting the spread of fuel cycle technologies that are permitted under the Nuclear Non-Proliferation Treaty but can be used to make nuclear weapons materials. The United States cannot credibly persuade other countries to forgo a technology it has newly embraced for its own use. Although some reprocessing advocates claim that new reprocessing technologies under development will be "proliferation resistant," they would actually be more difficult for international inspectors to safeguard because it would be harder to make precise measurements of the weapon-usable materials during and after processing. Moreover, all reprocessing technologies are far more proliferation-prone than direct disposal.

#### Political Cover – Thorium gives countries a rationale to continue ENR or create plutonium – can’t control how the technology is used

FOE Australia, 2012, “Thorium and WMD proliferation risks,” http://foe.org.au/anti-nuclear/issues/nfc/power-weapons/thorium

Thorium fuel cycles are promoted on the grounds that they pose less of a proliferation risk compared to conventional reactors. However, whether there is any significant non-proliferation advantage depends on the design of the various thorium-based systems. No thorium system would negate proliferation risks altogether. Neutron bombardment of thorium (indirectly) produces uranium-233, a fissile material which can be used in nuclear weapons (1 Significant Quantity of U-233 = 8kg). The USA has successfully tested weapon/s using uranium-233 cores. India may be interested in the military potential of thorium/uranium-233 in addition to civil applications. India is refusing to allow safeguards to apply to its entire 'advanced' thorium/plutonium fuel cycle, stongly suggesting a military dimension. The possible use of highly enriched uranium (HEU) or plutonium to initiate a thorium-232/uranium-233 reaction, or proposed systems using thorium in conjunction with HEU or plutonium as fuel, present risks of diversion of HEU or plutonium for weapons production as well as providing a rationale for the ongoing operation of dual-use enrichment and reprocessing plants. Thorium fuelled reactors could also be used to irradiate uranium to produce weapon grade plutonium. Kang and von Hippel conclude that "the proliferation resistance of thorium fuel cycles depends very much upon how they are implemented". For example, the co-production of uranium-232 complicates weapons production but, as Kang and von Hippel note, "just as it is possible to produce weapon-grade plutonium in low-burnup fuel, it is also practical to use heavy-water reactors to produce U-233 containing only a few ppm of U-232 if the thorium is segregated in "target" channels and discharged a few times more frequently than the natural-uranium "driver" fuel." (Kang, Jungmin, and Frank N. von Hippel, 2001, "U-232 and the Proliferation-Resistance of U-233 in Spent Fuel", Science & Global Security, Volume 9, pp 1-32, <www.princeton.edu/~globsec/publications/pdf/9\_1kang.pdf>.)

### iran

**Iran prolif isn’t a threat – they don’t want the bomb and if they get it they won’t use it**

**Pinker, 11** [Steven, professor of psychology at Harvard University, *The Better Angels of our Nature Why Violence Has Declined*, ISBN: 067002295, for online access email alexanderdpappas@gmail.com and I will forward you the full book]

If current pundits are to be believed, then as you are reading these words the New Peace will already have been shattered by a major war, perhaps a nuclear war, with Iran. At the time of this writing, tensions have been rising over the country’s nuclear energy program. Iran is currently enriching enough uranium to fashion a nuclear arsenal, and it has defied international demands that it allow inspections and comply with other provisions of the Nuclear Nonproliferation Treaty. The president of Iran, Mahmoud Ahmadinejad, has taunted Western leaders, supported terrorist groups, accused the United States of orchestrating the 9/11 attacks, denied the Holocaust, called for Israel to be “wiped off the map,” and prayed for the reappearance of the Twelfth Imam, the Muslim savior who would usher in an age of peace and justice. In some interpretations of Shi’a Islam, this messiah will show up after a worldwide eruption of war and chaos. All this is, to say the least, disconcerting, and many writers have concluded that Ahmadinejad is another Hitler who will soon develop nuclear weapons and use them on Israel or furnish them to Hezbollah to do so. Even in less dire scenarios, he could blackmail the Middle East into acceding to Iranian hegemony. The prospect might leave Israel or the United States no choice but to bomb its nuclear facilities preemptively, even if it invited years of war and terrorism in response. A 2009 editorial in the *Washington Times* spelled it out: “War with Iran is now inevitable. The only question is: Will it happen sooner or later?”279 This chilling scenario of a nuclear attack by Iranian fanatics is certainly possible. But is it *inevitable*, or even highly likely? One can be just as contemptuous of Ahmadinejad, and just as cynical about his motives, while imagining less dire alternatives for the world ahead. John Mueller, Thomas Schelling, and many other foreign affairs analysts have imagined them for us and have concluded that **the Iranian nuclear program is not the end of the world**.280 Iran is a signatory to the Nuclear Nonproliferation Treaty, and Ahmadinejad has repeatedly declared that Iran’s nuclear program is intended only for energy and medical research. In 2005 Supreme Leader Khameini (**who wields more power than Ahmadinejad**) issued a fatwa declaring that **nuclear weapons are forbidden under Islam**.281 If the government went ahead and developed the weapons anyway, it would not be the first time in history that national leaders have lied through their teeth. But having painted themselves into this corner, the prospect of forfeiting all credibility in the eyes of the world (including major powers on whom they depend, like Russia, China, Turkey, and Brazil) might at least give them pause. Ahmadinejad’s musings about the return of the Twelfth Imam do not necessarily mean that he plans to hasten it along with a nuclear holocaust. Two of the deadlines by which writers confidently predicted that he would set off the apocalypse (2007 and 2009) have already come and gone.282 And for what it’s worth, here is how he explained his beliefs in a 2009 television interview with NBC correspondent Ann Curry: *Curry:* You’ve said that you believe that his arrival, the apocalypse, would happen in your own lifetime. What do you believe that you should do to hasten his arrival? *Ahmadinejad:* I have never said such a thing.... I was talking about peace.... What is being said about an apocalyptic war and—global war, things of that nature. This is what the Zionists are claiming. Imam . . . will come with logic, with culture, with science. He will come so that there is no more war. No more enmity, hatred. No more conflict. He will call on everyone to enter a brotherly love. Of course, he will return with Jesus Christ. The two will come back together. And working together, they would fill this world with love. The stories that have been disseminated around the world about extensive war, apocalyptic wars, so on and so forth, these are false. 283 As a Jewish atheist, I can’t say I find these remarks completely reassuring. But with one obvious change they are not appreciably different from those held by devout Christians; indeed, they are milder, as many Christians do believe in an apocalyptic war and have fantasized about it in bestselling novels. As for the speech containing the phrase that was translated as “wiping Israel off the map,” the *New York Times* writer Ethan Bronner consulted Persian translators and analysts of Iranian government rhetoric on the meaning of the phrase in context, and they were unanimous that Ahmadinejad was daydreaming about regime change in the long run, not genocide in the days ahead.284 The perils of translating foreign bombast bring to mind Khrushchev’s boast “We will bury you,” which turned out to mean “outlive” rather than “entomb.” There is a parsimonious alternative explanation of Iran’s behavior. In 2002 George W. Bush identified Iraq, North Korea, and Iran as the “axis of evil” and proceeded to invade Iraq and depose its leadership. North Korea’s leaders saw the writing on the wall and promptly developed a nuclear capability, which (as they no doubt anticipated) has put an end to any musings about the United States invading them too. Shortly afterward Iran put its nuclear program into high gear, aiming to create enough ambiguity as to whether it possesses nuclear weapons, or could assemble them quickly, to squelch any thought of an invasion in the mind of the Great Satan. If Iran does become a confirmed or suspected nuclear power, the history of the nuclear age suggests that the most likely outcome would be nothing. As we have seen, nuclear weapons have turned out to be useless for anything but deterrence against annihilation, which is why the nuclear powers have repeatedly been defied by their nonnuclear adversaries. The most recent episode of proliferation bears this out. In 2004 it was commonly predicted that if North Korea acquired a nuclear capability, then by the end of the decade it would share it with terrorists and set off a nuclear arms race with South Korea, Japan, and Taiwan.285 In fact, North Korea did acquire a nuclear capability, the end of the decade has come and gone, and nothing has happened. It’s also unlikely that any nation would furnish nuclear ammunition to the loose cannons of a terrorist band, thereby giving up control over how they would be used while being on the hook for the consequences.286 In the case of Iran, before it decided to bomb Israel (or license Hezbollah to do so in an incriminating coincidence), with no conceivable benefit to itself, its leaders would have to anticipate a nuclear reprisal by Israeli commanders, who could match them hothead for hothead, together with an invasion by a coalition of powers enraged by the violation of the nuclear taboo. Though the regime is detestable and in many ways irrational, one wonders whether its principals are so indifferent to continuing their hold on power as to choose to annihilate themselves in pursuit of perfect justice in a radioactive Palestine or the arrival of the Twelfth Imam, with or without Jesus at his side. As Thomas Schelling asked in his 2005 Nobel Prize lecture, “What else can Iran accomplish, except possibly the destruction of its own system, with a few nuclear warheads? Nuclear weapons should be too precious to give away or to sell, too precious to waste killing people when they could, held in reserve, make the United States, or Russia, or any other nation, hesitant to consider military action.”287 Though it may seem dangerous to consider alternatives to the worst-case scenario, the dangers go both ways. In the fall of 2002 George W. Bush warned the nation, “America must not ignore the threat gathering against us. Facing clear evidence of peril, we cannot wait for the final proof —the smoking gun—that could come in the form of a mushroom cloud.” The “clear evidence” led to a war that has cost more than a hundred thousand lives and almost a trillion dollars and has left the world no safer. A cocksure certainty that Iran will use nuclear weapons, in defiance of sixty-five years of history in which authoritative predictions of inevitable catastrophes were repeatedly proven wrong, could lead to adventures with even greater costs.

## 1nr

### 2nc at: no central asia war

#### And escalation’s guaranteed --- now distinct then their old ev

Sahgal and Anand 10 (Arun, former Army officer who created the Office of Net Assessment in the Indian Joint Staff, Senior Fellow at the Institute for Defense Studies and Analyses and ‘Distinguished Fellow’ School of Geo-Politics at the Manipal Academy of Higher Education and Vinod, postgraduate in defence and strategic studies and is an alumnus of Defence Services Staff College and College of Defence Management, “Strategic Environment in Central Asia and India”, <http://www.silkroadstudies.org/new/docs/publications/1004Joshi-V-Strategic.pdf>)

The geo-strategic salience of Central Asia today has been underscored by two main factors. First, Central Asia has become important because of the discovery of hydrocarbon reserves and second, it has become a major transportation hub for gas and oil pipelines and multi-modal communication corridors connecting China, Russia, Europe, the Caucasus region, the Trans-Caspian region and the Indian Ocean. Furthermore, whether it was Czarist Russia or the Soviet Union or even the present Central Asian regimes, there has always been a strategic ambition in the north to seek access to the warm waters of the Indian Ocean. Thus Afghanistan, which links Central Asia and South Asia, is a strategic bridge of great geopolitical significance. Central Asia and South Asia are intimately connected not only geographically but also strategically. The Central Asian republics of Turkmenistan, Uzbekistan and Tajikistan have borders with Afghanistan, Iran lies to its west and Pakistan to the east and south. Therefore, the geostrategic significance of Afghanistan is enhanced even though it may not be an oil- or gas-rich country. With the control of Afghanistan comes the control of the land routes between the Indian subcontinent and resource-rich Central Asia, as well as of a potential corridor to Iran and the Middle East. Thus, stability and peace in Afghanistan, and for that matter Pakistan, are a geostrategic imperative. Central Asia has never been a monolithic area and is undergoing a turbulent transitional process with a diverse range of ethnicities and fragmented societies throughout the region. These societal divisions and lack of political maturity compound the social, economic and political challenges. Security and economic issues are the two most important components of the Central Asian states’ engagement with outside powers. Among the states themselves there are elements of both cooperation and competition. Historical legacies, their geo-strategic locations, and above all their perceived national interests profoundly influence the political choices of Central Asian nations. The weaknesses of the new nations in Central Asia pave the way for outside powers to interfere in their internal affairs.

#### draws in major powers and causes nuclear war - miscalculation means no cooperation

Peimani 2 - Head of Energy Security and Geopolitics @ the Energy Studies Institute (Dr. Hooman, “Failed Transition and Bleak Future? War and Instability in Central Asia and the Caucasus,” Book, <http://www.questia.com/PM.qst?a=o&d=101331065>

If the existing negative trend continues, the entire Caucasus and Central Asia will likely head toward long-term tension and instability. The first and foremost victims of this undesirable future will obviously be the three Caucasian and five CA countries. Yet, this bleak future will also have major implications for a number of regional (Iran, China, Turkey, and Russia) and nonregional (United States) powers with long-term interests in the two regions most of which share borders with them. The deteriorating situation will create a suitable ground for the emergence and growth of political extremism among the peoples of the Caucasus and Central Asia, who are mostly dissatisfied with the status quo. These frustrated and disenchanted peoples will likely find the extremist political ideologies and programs more appealing and more convincing than those of their discredited rulers. The latter’s legitimacy is being questioned by a growing number of their nationals for a wide range of reasons, including incompetence, rampant corruption, and an antidemocratic style of government. In response to the rising internal threat, the ruling elites will likely resort to nationalism. In particular, they might promote extreme forms of nationalism, including chauvinism, as experienced in many other countries in different continents confronting the same situation. Creating an appealing alternative to that of the opposition extremist groups aimed at the dissatisfied people will be one of its major objectives. Extreme nationalism will be very attractive for the youth—the social stratum most vulnerable to extremist ideologies and the main targets of extremist groups. The ruling elites might also find their resort to extreme nationalism necessary for the sake of consolidating their challenged power apparatus. In this case, they could seek to manipulate the nationalist sentiment of their peoples as a means to increase their legitimacy and strengthen their social basis of support. However, using the nationalist card will have a negative backlash, with weakening and destabilizing effects on its users. Extreme nationalism could, and will likely, provoke ethnic conflicts within the multiethnic Caucasian and CA countries. It could therefore lead to civil wars. Moreover, it could spread fear in the neighboring countries. They might feel threatened by the surge of nationalism in their vicinity, which could easily take the form of expansionism in the Caucasian and CA countries characterized with territorial and border disputes. In addition to various external influences, many internal social, economic, and political factors will determine in what form and to what extent instability will surface in each Caucasian and CA country. Needless to say, based on the specific situation in each country there will be differences in its shape and in the extent of its initial emergence. Regardless of these differences, the logical and predictable outcome of the current trend will likely be instability in the form of civil, interstate, and regional wars in the Caucasus and Central Asia. The existence of unsettled, although currently inactive, violent conflicts (i.e., independence movements and civil wars) in these two regions have left no doubt about the feasibility of this scenario. To this list, one should also add the existence of many ethnic grievances and territorial and border disagreements, which will likely create a suitable ground for the instigation of new ethnic conflicts and territorial disputes in violent forms. For a number of reasons, there is a great possibility that many of them could escalate to civil wars and interstate wars, respectively. Among other factors, the ethnic makeup of the Caucasus and Central Asia and the existence of many sources of conflict between their regional states will pave the way for their further escalation to the level of regional wars, despite the intention of their initiators. The presence of certain regional (Iran, China, Turkey, and Russia) and nonregional ([and the] United States) powers with long-term interests in the two regions will have a certain impact on the development of the scenarios mentioned above and will likely contribute to the extent, intensity, and duration of wars of various forms. In particular, the presence of these powers will increase the possibility of their intentional or unintentional involvement in those wars in support of one side or another, while preserving their interests. Depending on the situation, whether this involvement takes a direct or indirect form will be determined by many factors, including the importance of the affected Caucasian or CA countries for each of the five states and the latter’s political, economic, and military capabilities. These factors also include the geographical realities, which, depending on the case, facilitate or impede their access to the affected countries, and the overall political environment in Central Asia and the Caucasus. The latter determines whether a foreign intervention in whatever form can take place at all. The possibility of some or all of the five states being dragged into any future military conflict will therefore strengthen the potential for the escalation and expansion of military conflicts in either of the two regions. War and instability in these energy-producing regions bordering regional and global powers with strong conventional military and/or nuclear capabilities will have long-term political, economic, and security implications. They will not be confined only to the countries directly involved in any future regional military conflict. In one way or another, they could affect the stability of the Caucasus and Central Asia as well as that of the Asian and/or European regions in their proximity. As a result, wars in whatever form in those two regions could escalate and affect the stability of the international system and global peace.

#### Thorium collapses them—jacks Namibian mining

Christy Tawii 12, Frost & Sullivan Mining Research Analyst, 3/27/12, “Is Namibia Southern Africa's Epicenter for Uranium Mining Growth?,” <http://www.frost.com/sublib/display-market-insight-top.do?id=256609167>

Despite the anticipated prospect for growth, a number of constraints need to be addressed for the uranium mining industry to sustain growth. The demand for power in Namibia has grown sharply in the recent years, as a result of increased mining and processing activities. Supply, however, has been constrained by South Africa's power utility, Eskom's, failure to export power to the country. High levels of mining and exploration activities in the uranium sector are expected to increase electricity demand and necessitate additional power supply from other power sources. With the current shortage of electricity supply in the Southern African region, uranium mining operations are faced with escalating energy costs, resulting in high operating margins.¶ In Finance Minister's, Sarah Kuugongelwa-Amadhila's, budget speech for 2012/2013 the addition of new taxes, which are currently being tabled by government, was announced. These taxes include export tax of natural resources, revised corporate income tax for non-diamond mining entities, and an environmental levy on environmentally harmful products, which are expected to impinge on uranium mining operations.¶ Furthermore, concern of a global decline in the demand for uranium was created; following the uranium price volatility after the Fukushima disaster took place in Japan in March 2011 - the second worst calamity in the history of nuclear power, after the Chernobyl nuclear disaster in Ukraine in 1986. Uranium prices, worldwide, plummeted causing the continuance of uranium production to be uneconomical for uranium producers. Another Fukushima-type incident will dampen public perception, raising fears about the safety of uranium. The existence of a substitute, such as thorium, which is cheaper and safer, could present serious challenges for the uranium mining industry in the long term. Despite the Fukushima drawback, the rising demand for nuclear energy is expected to influence the development of new uranium mines.

#### That weakens their economy

MME 11 --- MINISTRY OF MINES AND ENERGY – Republic of Namibia, “DRAFT NUCLEAR FUEL CYCLE POLICY,” 11-25-11, <http://www.mme.gov.na/pdf/Draft_Nucler_Policy_Stakeholders_%28Final%29.pdf>

Global Market and need for uranium¶ The need for uranium is expected to increase in the future because of growing demand for nuclear fuel in the world as well as decreasing stockpiles of secondary sources.¶ It is expected that there will be increased production of uranium as it is currently witnessed in Kazakhstan, Australia, Namibia, Canada, Niger and Russia.¶ Eight countries produce more than 90 % of the world uranium and the top four producing countries are Kazakhstan, Canada, Australia and Namibia as of 2011.¶ Namibia is ready to respond to the increasing global uranium demand by creating a conducive, competitive environment and necessary frameworks, to optimise mutual benefits for the country and investors.¶ Strategic importance of uranium for Namibia¶ Namibia has designated its uranium resources as strategic and controlled minerals that must be treated differently from other minerals due to amongst others, the risk of proliferation, its characteristic as material for production of nuclear weapons, fuel for energy production and radiological risk.¶ Namibia has large known uranium reserves and resources and the potential exist to discover new deposits. Namibia recognizes its current energy deficiency which is expected to increase in the future due to the growth in industrial activities.¶ Uranium beneficiation in Namibia will have significant socio-economic impacts in terms of skills development, job creation, revenue optimization and attainment of national developmental goals (sufficient power generation for industrialization) in line with vision 2030. It has also potential to indirectly stimulate other sectors of the economy and enhance overall industrial development.¶ Uranium mining in Namibia¶ Uranium mining in the Namibian Economy¶ The economy of Namibia is heavily dependent on the extraction and processing of minerals for export. In particular, uranium mining and processing has contributed to the Namibian economy both in terms of revenue generated and employment creation for more than thirty years.¶ Namibia is currently the fourth largest uranium producer in the world and will be a significant uranium producer in the near future due to current active mine developments and exploration activities. However, there are some low grade uranium deposits that make exploitation susceptible to economic fluctuations. Some mine developments in Namibia may become unprofitable, if uranium prices drop to low levels.¶ The secondary industries (support services and the retail sectors) are also growing to meet the cumulative demands of the new mine developments and their employees. An increase in local municipal revenues and spending will provide a major economic stimulus, in particular to the Erongo Region. Uranium exploration and mining have a considerable direct employment effect in Namibia, currently employing at least 4000 people, supporting many other indirect beneficiaries.

#### The impact is crime and drug trafficking

Mmegi 10—Mmegi Online, 9/29/10, Namibia unemployment climbs to 51.2%, <http://www.mmegi.bw/index.php?sid=4&aid=5290&dir=2010/September/Wednesday29>

Government yesterday announced the results of the 2008 Namibia Labour Force Survey (NLFS) that confirmed the astronomical figure of 51.2 percent unemployment rate among the country's economically active population.The survey that is conducted every three years, aims at providing insight into the state of unemployment.¶ At 51.2 percent, Namibia joins the likes of Mozambique, Zambia and Zimbabwe in the sub-region, countries whose unemployment rate has shot above the 50-percent mark, with Zimbabwe standing at 95 percent.¶ Botswana has the lowest unemployment rate in the SADC region at 7.5 percent (2007), while regional powerhouse, South Africa stands at 25 percent.¶ Yesterday, authorities seemed to have accepted the rising unemployment, with Minister of Labour and Social Welfare, Immanuel Ngatjizeko, saying the onus was now on every Namibian to turn the tide against the problem."The methodology used in the survey meets the international standards. Therefore, there should be no doubt about the accuracy of the 51.2 percent of the unemployment, in Namibia.¶ "It is a fact established by the survey that unemployment is high and everybody should use this figure to find strategies to reverse this current unemployment situation in the country," warned Ngatjizeko.¶ Namibia's rising unemployment, which is despite a steady economic growth over the past years, has emerged as a serious challenge to the Namibian Government - two decades after the country attained self-rule.¶ The last official employment statistics released in 2004 revealed that the unemployment rate was hovering at 36 percent. Since then, the dearth of official unemployment data has resulted in industry kiting astronomical figures of more than 50 percent unemployment rate.¶ Although there is no consensus on the actual unemployment statistics, there is abundant evidence to prove empirically and theoretically that unemployment rate is high in Namibia. It is said to be among the highest in Southern African Custom Union (SACU) member states.¶ Of the other SACU states, Botswana has the lowest at 7.5 percent according to 2007 figures, while Namibia has 51.2 percent and South Africa has 25 percent.¶ The NLFS only covered populations living in private households, according to Ngatjizeko. This figure amounts to 894, 163 males and 940, 844 females, which represents a sex ratio of 90 males per 100 females.¶ "The 2008 NLFS finding therefore recorded unemployment rate in Namibia as 51.2 percent of the total labour force in a broad definition whereas 37.6 percent of the total labour force in strict definition," said Ngatjizeko.¶ Among unemployed people in Namibia, there are those between the age group of 15-24 years. This age group is referred to as the youth and is the most affected by the unemployment situation, according to the survey.¶ Unemployment remains chronic despite Government bending over backwards to encourage investment in the minerals, manufacturing and agricultural sectors.¶ Evidently, an independent Namibia inherited a highly segmented labour market, with a major underlying factor being unequal access to education and, sometimes, total lack of access to education. A three percent average economic growth over the past years has not transformed into jobs for the country's youths, the majority in the country.¶ Namibian colleges churn out hundreds, if not thousands, of qualified graduates annually but their prospects of landing a job of their dreams are bleak. Either, they find themselves doing menial jobs or roaming the streets, exacerbating years of grinding poverty. The high unemployment rate has been blamed for the rising crime, anti-social behaviours such as prostitution and the rise in illegal drug trade and intakes.

#### Namibia’s a key waypoint between Latin America and Africa

Barry 11—Zenobia Beatrix Barry, Office of The Prosecutor General, Ministry of Justice, Namibia, 11

CHALLENGES IN THE INVESTIGATION, PROSECUTION AND TRIAL OF TRANSNATIONAL ORGANIZED CRIME IN NAMIBIA

On a global scale Namibia cannot really be categorized as a consumer country. However, consumption does take place, although on a smaller scale. Initially the most prominently abused drugs were cannabis and¶ Mandrax, which contains methaqualone. Since the late 1990s, drug syndicates have also succeeded in¶ introducing drugs like cocaine, crack, amphetamines, ecstasy and heroin into the country. Namibia, with its¶ cosmopolitan inhabitants, created a small lucrative market for virtually all kinds of illicit drugs manufactured¶ worldwide. Local drug dealers established links with their foreign counterparts and the latter then regularly¶ visit and stay in Namibia for the sole purpose of trading in drugs. These drugs are also shipped here from¶ producing countries around the world, as Namibia itself is not a producing country. At a regional level about¶ 95% of cannabis consumed locally comes from neighbouring South Africa, while the other 5% comes from¶ neighbouring Angola, Zambia and Tanzania. At an international level most of our hard drugs like cocaine,¶ heroin and ecstasy comes from countries like South Africa and Brazil.¶ Namibia can be categorized as being mostly a transit country because drugs such as cocaine, heroin and¶ Mandrax destined for neighbouring countries finds its way there via Namibia. This contraband is being¶ smuggled by road into and/or through the country in furniture trucks (hidden amongst ordinary freight), in¶ public transport (hidden amongst personal belongings) and even in cross-border parcel courier services. The¶ truck and courier drivers are sometimes corrupted and paid by the drug traffickers to smuggle the drugs¶ either into or through the country. International drug couriers also fly via Namibia to neighbouring countries¶ with drug parcels collected in producing countries like Brazil.

#### Funds South American cartels and causes African instability

Brownfield 12—William R. Brownfield, Assistant Secretary, Bureau of International Narcotics and Law Enforcement Affairs, Statement before the Senate Caucus on International Narcotics Control, Washington, DC, May 16, 2012, <http://www.state.gov/j/inl/rls/rm/190188.htm>

Transnational organized crime, including drug trafficking, is a major threat to security and governance throughout West Africa. Traffickers are moving drugs, people, small arms, oil, cigarettes, counterfeit medicine, and toxic waste through the region, generating large profits for transnational criminal networks. The United Nations Office on Drugs and Crime (UNODC) has estimated that, together, these illicit activities generate approximately $3.34 billion a year. Cocaine trafficking is one of the most lucrative of these illicit activities. In fact, the U.S. government and the UNODC have estimated that about 13 percent of the global cocaine flow moves through West Africa.¶ Drug trafficking in West Africa directly harms Americans. We have invested greatly in attacking the South American drug cartels that move cocaine to our streets. Because of our successes impeding the flow of cocaine north, and growing demand for cocaine in Europe, these cartels have found new ways to stay in business. Although most of the cocaine moving through West Africa goes to Europe, the proceeds from cocaine trafficked through West Africa flow back to organizations that move cocaine to America, reinforcing their financial strength and their motivation to continue exploiting emerging routes for drug sales. We are also starting to see drug trafficking in the West African region expand from cocaine to include heroin, which does come to American streets. In July 2011, for example, U.S. federal agents took down an international heroin trafficking ring that moved heroin from Ghana to Dulles International Airport.¶ As you’ve rightly identified, another reason drug trafficking in West Africa deserves particular attention today is because of its destabilizing impact across the region. Competition between government factions for control of drug trafficking profits has greatly increased instability in the region. The potential for drugs to contribute to destabilization in the region is clearly seen, for example, in the case of Guinea-Bissau, where most of the country’s leadership has been implicated in drug trafficking. This example serves as a dire warning of the destabilizing effects of drug trafficking. Recognizing this link, when West African Heads of State laid out the region’s response to the April 12th coup in Guinea-Bissau at an April 26th Extraordinary Summit of the Economic Community of West African States (ECOWAS), they specifically highlighted the need for expedited action to address drug trafficking.

#### African conflicts escalate to great power wars

Glick 7 (Caroline, senior Middle East fellow at the Center for Security Policy, 12/12, Condi’s African holiday, p. <http://www.centerforsecuritypolicy.org/home.aspx?sid=56&categoryid=56&subcategoryid=90&newsid=11568>)

The Horn of Africa is a dangerous and strategically vital place. Small wars, which rage continuously, can easily escalate into big wars. Local conflicts have regional and global aspects. All of the conflicts in this tinderbox, which controls shipping lanes from the Indian Ocean into the Red Sea, can potentially give rise to regional, and indeed global conflagrations between competing regional actors and global powers. Located in and around the Horn of Africa are the states of Eritrea, Djibouti, Ethiopia, Somalia, Sudan and Kenya. Eritrea, which gained independence from Ethiopia in 1993 after a 30-year civil war, is a major source of regional conflict. Eritrea has a nagging border dispute with Ethiopia which could easily ignite. The two countries fought a bloody border war from 1998-2000 over control of the town of Badme. Although a UN mandated body determined in 2002 that the disputed town belonged to Eritrea, Ethiopia has rejected the finding and so the conflict festers. Eritrea also fights a proxy war against Ethiopia in Somalia and in Ethiopia's rebellious Ogaden region. In Somalia, Eritrea is the primary sponsor of the al-Qaida-linked Islamic Courts Union which took control of Somalia in June, 2006. In November 2006, the ICU government declared jihad against Ethiopia and Kenya. Backed by the US, Ethiopia invaded Somalia last December to restore the recognized Transitional Federal Government to power which the ICU had deposed. Although the Ethiopian army successfully ousted the ICU from power in less than a week, backed by massive military and financial assistance from Eritrea, as well as Egypt and Libya, the ICU has waged a brutal insurgency against the TFG and the Ethiopian military for the past year. The senior ICU leadership, including Sheikh Hassan Dahir Aweys and Sheikh Sharif Ahmed have received safe haven in Eritrea. In September, the exiled ICU leadership held a nine-day conference in the Eritrean capital of Asmara where they formed the Alliance for the Re-Liberation of Somalia headed by Ahmed. Eritrean President-for-life Isaias Afwerki declared his country's support for the insurgents stating, "The Eritrean people's support to the Somali people is consistent and historical, as well as a legal and moral obligation." Although touted in the West as a moderate, Ahmed has openly supported jihad and terrorism against Ethiopia, Kenya and the West. Aweys, for his part, is wanted by the FBI in connection with his role in the bombing of the US embassies in Kenya and Tanzania in 1998. Then there is Eritrea's support for the Ogaden separatists in Ethiopia. The Ogaden rebels are Somali ethnics who live in the region bordering Somalia and Kenya. The rebellion is run by the Ogaden National Liberation Front (ONLF) which uses terror and sabotage as its preferred methods of warfare. It targets not only Ethiopian forces and military installations, but locals who wish to maintain their allegiance to Ethiopia or reach a negotiated resolution of the conflict. In their most sensationalist attack to date, in April ONLF terror forces attacked a Chinese-run oil installation in April killing nine Chinese and 65 Ethiopians. Ethiopia, for its part has fought a brutal counter-insurgency to restore its control over the region. Human rights organizations have accused Ethiopia of massive human rights abuses of civilians in Ogaden. Then there is Sudan. As Eric Reeves wrote in the Boston Globe on Saturday, "The brutal regime in Khartoum, the capital of Sudan, has orchestrated genocidal counter-insurgency war in Darfur for five years, and is now poised for victory in its ghastly assault on the region's African populations." The Islamist government of Omar Hasan Ahmad al-Bashir is refusing to accept non-African states as members of the hybrid UN-African Union peacekeeping mission to Darfur that is due to replace the undermanned and demoralized African Union peacekeeping force whose mandate ends on December 31. Without its UN component of non-African states, the UN Security Council mandated force will be unable to operate effectively. Khartoum's veto led Jean-Marie Guehenno, the UN undersecretary for peacekeeping to warn last month that the entire peacekeeping mission may have to be aborted. And the Darfur region is not the only one at risk. Due to Khartoum's refusal to carry out the terms of its 2005 peace treaty with the Southern Sudanese that ended Khartoum's 20-year war and genocide against the region's Christian and animist population, the unsteady peace may be undone. Given Khartoum's apparent sprint to victory over the international community regarding Darfur, there is little reason to doubt that once victory is secured, it will renew its attacks in the south. The conflicts in the Horn of Africa have regional and global dimensions. Regionally, Egypt has played a central role in sponsoring and fomenting conflicts. Egypt's meddling advances its interest of preventing the African nations from mounting a unified challenge to Egypt's colonial legacy of extraordinary rights to the waters of the Nile River which flows through all countries of the region.

### safety

#### Claims of proliferation resistance are false—thorium reactors produce U-233 which can be used for nukes – trust the IAEA not industry hacks.

NNL 12—National Nuclear Laboratory (UK), Comparison of thorium and uranium fuel cycles, NNL (11) 11593 Issue 5, A report prepared for and on behalf of Department of Energy and Climate Change, http://www.decc.gov.uk/assets/decc/11/meeting-energy-demand/nuclear/6300-comparison-fuel-cycles.pdf

The absence of plutonium is in the thorium fuel cycle is claimed to reduce the risk of nuclear weapons proliferation, though Reference [1] questions whether is this is completely valid, given that there were a number of U-233 nuclear tests (the “Teapot tests”) in the US in the 1950s. U-233 is in many respects very well suited for weapons use, because it has a low critical mass, a low spontaneous neutron source and low heat output. It has been stated [eg Wikipedia entry on U-233] that because U-233 has a higher spontaneous neutron source than Pu-239, then this makes it more of a technical challenge. However, this is erroneous, because even in weapons grade plutonium the main neutron source is from Pu-240. A further consideration is that the U-233 produced in thorium fuel is isotopically very pure, with only trace quantities of U-232 and U-234 produced. Although the U-232 presents problems with radiological protection during fuel fabrication, the fissile quality does not degrade with irradiation. Therefore, if it is accepted that U-233 is weapons useable, this remains the case at all burnups and there is no degradation in weapons attractiveness with burnup, unlike the U-Pu cycle.¶ The presence of trace amounts of U-232 is beneficial in that it provides a significant gamma dose field that would complicate weapons fabrication and this has been claimed to make U-233 proliferation resistant. However, there are mitigating strategies can be conceived and the U-232 dose rate cannot be regarded as a completely effective barrier to proliferation. As such, U-233 should be considered weapons usable in the same way as HEU and plutonium. This is also the position taken by the IAEA, which under the Convention on the Physical Protection of Nuclear Materials [16] categorises U-233 in the same way as plutonium. Under the IAEA classification, 2 kg or more of U-233 or plutonium are designated as Category I Nuclear Material and as such are subject to appropriate controls. By way of comparison, the mass of U-235 for Category I material is 5 kg. Attempts to lower the fissile content of uranium by adding U-238 are considered to offer only weak protection, as the U-233 could be separated relatively easily in a centrifuge cascade in the same way that U-235 is separated from U-238 in the standard uranium fuel cycle.¶ The overall conclusion is that while there may be some justification for the thorium fuel cycle posing a reduced proliferation risk, the justification is not very strong and, as noted in Section 3.5, this is not a major factor for utilities. Regardless of the details, those safeguards and security measures in place for the U-Pu cycle will have to remain in place for the thorium fuel cycle and there is no overall benefit.

#### Thorium causes prolif

Green 9 Jim, PhD science and technology and coordinator of the Beyond Nuclear Initiative, "Nuclear weapons and 'fourth generation' reactors" May 9, www.greenleft.org.au/node/41606

The use of thorium, instead of plutonium, as a nuclear fuel doesn't solve the weapons proliferation problem. Irradiation of thorium (indirectly) produces uranium-233, a fissile material that can be used in nuclear weapons. The US has successfully tested weapons using uranium-233 (and France may have too). India's thorium program must have a nuclear weapons component — as evidenced by India's refusal to allow IAEA safeguards to apply to its thorium program. Thorium-fuelled reactors could also be used to irradiate uranium to produce weapons grade plutonium.

#### Thorium causes prolif and terrorism.

Beste 10—Steven Den Beste, former software engineer at Qualcomm, Hot Air, 8/31/10, Nuclear Weapons for the Masses! http://hotair.com/greenroom/archives/2010/08/31/nuclear-weapons-for-the-masses/

Glenn Reynolds tends to get hyped on certain kinds of high-tech. His latest “faster please” is thorium reactors.¶ ¶ And yeah, there’s a lot to like about them. But there’s a really huge gotcha which is enough to kill the idea stone dead.¶ ¶ Thorium reactors use natural thorium, which is isotope 232. There are a lot of neutrons running around in there; it’s how reactors work. If an atom of thorium 232 absorbs a neutron, it becomes isotope 233. Some will fission, but some won’t.¶ ¶ Thorium 233 beta decays (HL 22 minutes) to proactinium 233, which beta decays (HL 27 days) to uranium 233.¶ ¶ Uranium 233 is fissionable, and you can make bombs out of it. And the best part of all is that it can be purified chemically out of the spent fuel of the thorium reactor. You don’t have to mess around with gas diffusion or centrifuges.¶ ¶ If, as some propose, there’s a thorium reactor buried in every backyard, you could face the possibility of pretty much any dedicated extremist being able to build nuclear weapons.¶ ¶ Is that a “faster please”?

#### Thorium lets states easily produce uranium-233 which is easier for nukes than plutonium.

Makhijani 12—Arjun Makhijani, president of the Institute for Energy and Environmental Research, 5/4/12, https://www.npr.org/2012/05/04/152026805/is-thorium-a-magic-bullet-for-our-energy-problems

ARJUN MAKHIJANI: I don't think so. I think the problems of nuclear power, fundamentally, would remain. The safety problems would be different. I mean, Mr. Martin and proponents of thorium are right in the sense that the liquid fuel reactor has a number of safety advantages, but it also has a number of disadvantages.¶For instance, this breeder reactor lost out with the sodium-cooled breeder, in the incident that Mr. Martin mentioned, because the liquid - the molten sodium reactor, the sodium-cooled reactor has a much better breeding ratio. It produces a lot more excess fuel that you can then take to the next reactor.¶In this reactor, because thorium is not a fissile material, you actually need either plutonium or enriched uranium to start it. In fact, this reactor that operated in Oak Ridge for a few years, it actually started up in 1964, it never used thorium to breed uranium-233.¶ Some uranium-233 was put into the reactor at one point, but it had been made in another reactor. It hadn't been made in that reactor. It operated with enriched uranium, some plutonium and some uranium-233, but not made in that reactor.¶ So what are the problems? The problem is that with this particular reactor, most people will want a reprocessing, that is separating the fissile material on-site. so you have a continuous flow of molten salt out of the reactor. You take out the protactinium-233, which is a precursor of uranium, and then you put the uranium back in the reactor, and then you keep it going.¶ But if you look at the Princeton University paper on thorium reactors from a few years ago, you'll see that this onsite reprocessing allows you to separate protactinium altogether. Now, the U.S. wouldn't do it, but if you were a county without nuclear materials and had a reprocessing plant right there, you'd separate the protactinium-233, you'd get pure uranium-233, which is easier to make bombs with than plutonium.

#### Prefer our ev

Boyd 9—Michele Boyd, Director of the Safe Energy Program at Physicians for Social Responsibility, and Arjun Makhijani, electrical and nuclear engineer who is President of the Institute for Energy and Environmental Research, 2009, A Fact Sheet Produced by Physicians for Social Responsibility and the Institute for Energy and Environmental Research, http://ieer.org/resource/factsheets/thorium-fuel-panacea-nuclear-power/

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.¶ 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% 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 work is needed to move from 20% enrichment to 90% enrichment.¶ 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 U-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-usable plutonium is created and can be separated out. Even if the mixture of U-238 and U-233 contains so much U-238 that it cannot be used for making weapons, the U-233 proportion can be increased by enrichment – the same process used to enrich natural uranium in U-235. The enrichment of U-233 is easier than the enrichment of U-235 because U-233 is much lighter than U-235 relative to U-238 (five atomic weight units lighter compared to three).¶ 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.

#### Thorium products can still be used for weapons

Howarth ’10 – Managing Director of the UK National Nuclear Laboratory (Paul, “The Thorium Fuel Cycle,” August, UK National Nuclear Laboratory, http://ripassetseu.s3.amazonaws.com/www.nnl.co.uk/\_files/documents/aug\_11/NNL\_\_1314092891\_Thorium\_Cycle\_Position\_Paper.pdf)

Proliferation resistance¶ Contrary to that which many proponents of thorium claim, U-233 should be regarded as posing a definite proliferation risk. For a thorium fuel cycle which falls short of a breeding cycle, uranium fuel would always be needed to supplement the fissile material and there will always be significant (though reduced) plutonium production.¶ NNL believes that U-233 should be regarded as posing a comparable level of proliferation risk to High Enriched Uranium (HEU) and comparable with the U-Pu fuel cycle at best; this view is consistent with the IAEA, who under the Convention on the Physical Protection of Nuclear Materials, categorise U-233 on the same basis as plutonium. Attempts to lower the fissile content of uranium by adding U-238 are considered to offer only weak protection, as the U-233 could be separated in a centrifuge cascade in the same way that U-235 is separated from U-238 in the standard uranium fuel cycle.¶ The argument that the high U-232 content would be selfprotecting are considered to be over-stated. NNL’s view is that thorium systems are no more proliferation resistant than U-Pu systems though they may offer limited benefits in some circumstances.

#### Consensus that thorium isn’t prolif resistant.

Royal Society 11—Fuel cycle stewardship in a nuclear renaissance, The Royal Society Science Policy Centre

Alternatives to uranium or plutonium fuels, such¶ as thorium, have been advocated because the¶ thorium fuel cycle produces less plutonium in its¶ spent fuel (see section 2.2.1). There is an emerging¶ consensus that the thorium cycle may be no more¶ proliferation resistant than uranium or plutonium¶ based fuel cycles. An open thorium fuel cycle will¶ generally require U-235 or Pu-239 fuel to initiate it.¶ Spent thorium fuel that contains fissile U-233 can be¶ reprocessed and the U-233 used to initiate the cycle¶ instead. U-233 could be used in nuclear weapons.

### grid

#### And this new DOD strategy ends the risk of mission interruption during a significant grid outage

**Aimone, 9/12**/12 - Director Business Enterprise Integration Office of the Deputy Under Secretary of Defense (Installations and Environment) (Michael, Congressional Testimony, <http://homeland.house.gov/sites/homeland.house.gov/files/Testimony%20-%20Aimone.pdf>)

Chairman Lungren and distinguished Members of the Subcommittee. Thank you for the opportunity to testify. I was asked to address the question of how the Department of Defense (DoD) would operate during a significant outage of the commercial electric power grid. Although today’s hearing is focused on the prospect of an electromagnetic pulse (EMP) event, such an event is only one scenario for a grid outage. DoD is heavily dependent on the commercial electric power grid. The Department has two closely coordinated sets of activities that focus on the need to maintain critical mission activities in the event of a commercial grid outage. One set of activities, led by DoD’s office of homeland defense, is part of the Department’s explicit “mission assurance strategy.” The other set of activities, focused on the Department’s fixed installations and led by its Installations and Environment office, falls under DoD’s “facility energy strategy.”

Mission Assurance Strategy

The Department has long had a major focus on mitigating risks to high priority DoD facilities and infrastructure and the critical global missions they support. Toward that end, DoD recently adopted an explicit Mission Assurance Strategy, which is focused on ensuring operational continuity in an all-hazard threat environment.

This strategy entails a two-track approach. Track I includes "in-house" mitigation efforts-- activities that the Department can execute largely on its own. A key element is DoD’s Defense Critical Industry Program (DCIP)—an integrated risk management program designed to secure critical assets, infrastructure and key resources for our nation. DoD and the Department of Homeland Security (DHS) work closely together as part of DCIP. Under Track I of the Mission Assurance Strategy, DCIP will continue to update the list of DoD's most critical assets and target them for special mitigation efforts through DoD’s budget and other internal processes.

Track II of our Mission Assurance Strategy tackles the many challenges to DoD mission execution that require external collaboration with partners such as the Department of Energy (DOE), DHS and industry. Given that DoD mission execution relies heavily upon the energy surety of the communities surrounding our installations, Defense Industrial Base facilities spread across entire regions, and on private sector infrastructure that will collapse without electricity, this two-track approach can help meet the challenges to DoD mission assurance that lie far beyond our military bases.

### Solvency Overview

#### Their authors distort the truth

Shahan 12—Zachary Shahan, Director of CleanTechnica, 9/11/12, <http://cleantechnica.com/2012/09/11/why-thorium-nuclear-isnt-featured-on-cleantechnica/>

I had a reader email me recently asking why we don’t feature thorium nuclear technology on CleanTechnica. To many good-intentioned folks, thorium is an energy panacea that seems perfect. People I respect have asked me the same thing in the past year or so. But thorium is far from perfect. In fact, it’s pretty darn lame, as I think you will see below (if you read this with an open mind).¶ Now, before I get into the details of why thorium is anything but awesome, I want to say a few things about the culture that surrounds the “thorium will solve all our problems!” idea. Thorium enthusiasts are often willing to make claims like, “if it weren’t for the government, we would have switched to thorium nuclear energy decades ago.” Or, “thorium nuclear will solve all our problems, but it’s been suppressed by big government for decades.”¶ I have to admit that I’ve gotten into far too many discussions with conspiracy theorists in the past several years (mostly regarding the topic of global warming). Two things I’ve learned are that 1) they think nearly everything wrong in the world is due to governmental conspiracy; 2) you cannot expect to have a logical conversation with them — presenting facts does not matter at all.¶Believe me, I understand that most if not all governments have a lot of corrupt politicians and leaders in them, that rich, entrenched energy industries have far too much control, and do suppress new technologies that could threaten their livelihood. That said, everything is not a conspiracy, and there are legitimate reasons why wind and solar energy are blowing up in use and popularity but thorium is not. There’s a good reason (or many good reasons) why wind turbines and solar panels are in place all over the world, but there isn’t a single commercial thorium reactor in operation. It’s not because every government in the world is suppressing thorium. It’s most likely because thorium simply isn’t what its proponents say it is.¶Now, many or most of the commenters and bloggers who are into thorium come into the discussion in a very conspiratorial way, from my experience, which immediately throws up a yellow flag (note: not a red flag, but a yellow one). As I said, I’ve spent way too much time unsuccessfully trying to bring science and logic into discussions with conspiracy theorists.¶ Conspiracy theorists aren’t the only ones getting behind thorium, though. I know some very intelligent people not obsessed with conspiracy who think it could be awesome. But the thing is, nuclear technology and science is very technical. While hearing a handful of nice things about thorium in what sounds like technical or scientific language might get some people excited, it really shouldn’t. Unless you have a ton of time on your hands to very scientifically study the matter (not read blogs about the topic), you should probably defer to independent experts who have studied the matter, and have carefully studied the claims of the thorium fan club.¶ You might also consider that some governments (i.e. India) have been trying to get thorium off the ground for decades, with apparently no success, and many others have researched it (including world-leading countries such as Germany, Japan, the UK, Russia, and the US). Do you really think that every government that looks into the matter doesn’t want cheap, safe energy?

#### This card ends the debate---the aff cannot solve---neg on presumption

Lovins 10 AMORY B. LOVINS is Chair and Chief Scientist of Rocky Mountain Institute "Nuclear Socialism" Weekly Standard, VOL. 16, NO. 06 Oct 25 www.weeklystandard.com/articles/nuclear-socialism\_508830.html?page=1

With such juicy incentives, why won’t private investors finance reactors? In 2005-08, with the strongest subsidies, capital markets, and nuclear politics in history, why couldn’t 34 proposed reactors raise any private capital? Because there’s no business case. As a recent study by Citibank U.K. is titled “New Nuclear—the Economics Say No.” That’s why central planners bought all 61 reactors now under construction worldwide. None were free-market transactions. Subsidies can’t reverse bleak fundamentals. A defibrillated corpse will jump but won’t revive.

American taxpayers already reimburse nuclear power developers for legal and regulatory delays. A unique law caps liability for accidents at a present value only one-third that of BP’s $20 billion trust fund for oil-spill costs; any bigger damages fall on citizens. Yet the competitive risks facing new reactors are uninsured, high, and escalating.

Since 2000, as nuclear power’s cost projections have more than tripled, its share of global electricity generation has fallen from 17 percent to 13 percent. That of cogeneration (making electricity together with useful heat in factories or buildings) and renewables (excluding big hydropower projects) rose from 13 percent to 18 percent.

These bite-sized, modular, quickly built projects—with financial risks, costs, and subsidies generally below nuclear’s and declining​—now dominate global power investments. Last year, renewables (wind, water, solar, geothermal), excluding large hydroelectric dams, attracted $131 billion of private capital and added 52 billion watts. Global nuclear output fell for the past three years, capacity for two.

#### Not viable—

#### A—Fuel fabrication

Katusa 12—Marin Katusa, Contributor, Forbes, 2/16/12, http://www.forbes.com/sites/energysource/2012/02/16/the-thing-about-thorium-why-the-better-nuclear-fuel-may-not-get-a-chance/2/

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.

#### B—Key parts of the technology are purely theoretical—they just assume the technicalities will work out—even thorium advocates agree

TEI 9—Thorium Energy Alliance, <http://energyfromthorium.com/lftradsrisks.html>

While LFTRs offer much promise, several economic and engineering issues need to be addressed before this technology can become a reality.¶ Thorium as a Fuel--Thorium has never actually been continually processed for fuel in a fully operational liquid fluoride reactor. The MSRE used U233 as a fuel, but the U233 was generated in another reactor. A follow-on reactor design was planned to do the full-system tests, which the MSRE was too cost-constrained to perform, but it was never funded. A prototype reactor based on the ORNL design work would need to be built and the continuous thorium cycle processing validated as the fuel source in an operational LFTR.¶ Turbine System--The gas turbo-machinery is similar engineering to the well-developed open-cycle turbine (e.g., jet aircraft engine). However, this kind of closed-cycle electric generation system has never been built. A new triple-reheat closed-cycle Brayton system would need to be built and tested along with the LFTR. However, this is a minimal engineering risk in obtaining the overall efficiency of the electricity generation system. If the close cycle turbine system proves not to be economically viable, a steam system can be used.

#### C—No commercial scale

Sims 12—David Sims, Industry Market Trends, 9/5/12, Can Thorium Provide a Safer Nuclear Future? http://news.thomasnet.com/IMT/2012/09/05/can-thorium-provide-a-safer-nuclear-future/

However, critics of the thorium alternative point out that it’s more expensive than uranium because it can’t sustain a reaction by itself and must be bombarded with neutrons. Uranium can be left alone in a reaction, while thorium must be constantly prodded to keep reacting. Although this allows for safer reactions (if the power goes out it simply deactivates), it’s a more expensive process.¶ Thorium is a popular academic alternative: in the lab it works well, but it hasn’t been successfully – or profitably – used on a commercial scale yet.

#### Research is still required at all levels

Howarth ’10 – Managing Director of the UK National Nuclear Laboratory (Paul, “The Thorium Fuel Cycle,” August, UK National Nuclear Laboratory, http://ripassetseu.s3.amazonaws.com/www.nnl.co.uk/\_files/documents/aug\_11/NNL\_\_1314092891\_Thorium\_Cycle\_Position\_Paper.pdf)

Technology Readiness Level¶ NNL has assessed the Technology Readiness Levels (TRLs) of the thorium fuel cycle. For all of the system options more work is needed at the fundamental level to established the basic knowledge and understanding.¶ Thorium reprocessing and waste management are poorly understood. The thorium fuel cycle cannot be considered to be mature in any area. Much of the fundamental knowledge requirements and experimental measurements at laboratory scale have a high degree of commonality for the different systems. Generic R&D work is therefore a valuable starting point. R&D work at sub-industrial scale and commercial scale is required for all the systems, but will require substantial lead times to acquire and will necessarily be tied to major investments in developing specific systems.

# r3 neg v. georgetown cv

## 1nc

### T

#### Should refers to a future act not yet carried out—they should defend plans consistent with that

**Remo 32** Foresi v The Hudson Coal Co, SUPERIOR COURT OF PENNSYLVANIA, 106 Pa. Super. 307; 161 A. 910; 1932 Pa. Super. LEXIS 239 July 14,

As regards the mandatory character of the rule, the word 'should' is not only an auxiliary verb, it is also the preterite of the verb, 'shall' and has for one of its meanings as defined in the Century Dictionary: "Obliged or compelled (to); would have (to); must; ought (to); used with an infinitive (without to) to express obligation, necessity or duty in connection **with some act yet to be carried out**." We think it clear that it is in that sense that the word 'should' is used in this rule, not merely advisory. When the judge in charging the jury tells them that, unless they find from all the evidence, beyond a reasonable doubt, that the defendant is guilty of the offense charged, they should acquit, the word 'should' is not used in an advisory sense but has the force or meaning of 'must', or 'ought to' and carries with it the sense of obligation and duty equivalent to compulsion. A natural sense of sympathy for a few unfortunate claimants who have been injured while doing something in direct violation of law must not be so indulged as to fritter away, or nullify, provisions which have been enacted to safeguard and protect the welfare of thousands who are engaged in the hazardous occupation of mining.

**Context– should is etymologically the past tense of shall but in the resolution is present tense – it says “should substantially increase”, not “should have increased” which implies a future recommendation**

**Haning, 92 –** acting presiding judge (KEITH BOAM et al., Plaintiffs and Appellants, v. TRIDENT FINANCIAL CORPORATION et al., Defendants and Appellants. No. A050366 COURT OF APPEAL OF CALIFORNIA, FIRST APPELLATE DISTRICT, DIVISION FIVE 6 Cal. App. 4th 738; 8 Cal. Rptr. 2d 177; 1992 Cal. App. LEXIS 628; 929 Cal. Daily Op. Service 4147; 92 Daily Journal DAR 6505 May 14, 1992, Decided, lexis)

(6) Words, Phrases, and Maxims--Should. --Etymologically, "should" is the past tense of "shall," which ordinarily implies a command, but "should" used in the present or future tense, while not synonymous with and more forceful than "may," can convey only a moral obligation or strong recommendation.

**B. Vote neg**

#### 1. Limits – There are a huge number of past instances where the federal government has influenced energy policy – each of these is wildly unpredictable for the negative and our strategies have to be written to dozens of different contexts.

#### 2. negative ground – counterfactuals let every case have a different timeframe – it is impossible to create adequate generics, reading disads against this affirmative is impossible and they will choose loaded examples since consensus is generally settled on historical questions and some policies have been conclusively regarded as bad ones, like slavery.

#### 3. Education – debate gives skills to future decision-makers. All potential careers require cost-benefit calculation based on PREDICTIVE INFORMATION to be effective. This is a skill that can only be taught in policy debates using future fiat. If history is valuable it can be used as empirical examples to prove and disprove future arguments.

### T

#### Interpretation:

#### Increase requires specification

**OED, 89** (Oxford English Dictionary, 2nd edition, Online through Emory)

increase, v.

3. To become greater in some specified quality or respect; to grow or advance in.

#### Substantial is meaningful with firm basis

**WordNet, 6** (WordNet® 3.0, © 2006 by Princeton University. Dictionary.reference.com/ browse/substantial)

Substantial, adjective

 2. having a firm basis in reality and being therefore important, meaningful, or considerable; "substantial equivalents"

#### Incentives require distinct mechanisms—not just encouragement

**Marbek Resource Consultants, 6** (Report prepared for the Canadian Council of Ministers of the Environment “NATIONAL EXTENDED PRODUCER RESPONSIBILITY (EPR) WORKSHOP,” 9/27, http://www.ccme.ca/assets/pdf/epr\_wkshp\_rpt\_1376\_e.pdf

The suggestion was made, and supported by others, that the word “incentives” for producers be replaced with the word “encourage”, since the term “incentive” usually implies a particular mechanism (#1).

#### Financial incentives cannot be discussed without specifying

**Webb, 93** – lecturer in the Faculty of Law at the University of Ottawa (Kernaghan, “Thumbs, Fingers, and Pushing on String: Legal Accountability in the Use of Federal Financial Incentives”, 31 Alta. L. Rev. 501 (1993)  Hein Online)

In this paper, "financial incentives" are taken to mean disbursements 18 of public funds or contingent commitments to individuals and organizations, intended to encourage, support or induce certain behaviours in accordance with express public policy objectives. They take the form of grants, contributions, repayable contributions, loans, loan guarantees and insurance, subsidies, procurement contracts and tax expenditures.19 Needless to say, the ability of government to achieve desired behaviour may vary with the type of incentive in use: up-front disbursements of funds (such as with contributions and procurement contracts) may put government in a better position to dictate the terms upon which assistance is provided than contingent disbursements such as loan guarantees and insurance. In some cases, the incentive aspects of the funding come from the conditions attached to use of the monies.20 In others, the mere existence of a program providing financial assistance for a particular activity (eg. low interest loans for a nuclear power plant, or a pulp mill) may be taken as government approval of that activity, and in that sense, an incentive to encourage that type of activity has been created.21 Given the wide variety of incentive types, it will not be possible in a paper of this length to provide anything more than a cursory discussion of some of the main incentives used.22 And, needless to say, the comments made herein concerning accountability apply to differing degrees depending upon the type of incentive under consideration.

By **limiting the definition** of financial incentives to initiatives where public funds are either disbursed or contingently committed, a large number of regulatory programs with incentive effects which exist, but in which no money is forthcoming,23 are excluded from direct examination in this paper. Such programs might be referred to as indirect incentives. Through elimination of indirect incentives from the scope of discussion, the definition of the incentive instrument becomes both more manageable and more particular. Nevertheless, it is possible that much of the approach taken here may be usefully applied to these types of indirect incentives as well.24 Also excluded from discussion here are social assistance programs such as welfare and ad hoc industry bailout initiatives because such programs are not designed primarily to encourage behaviours in furtherance of specific public policy objectives. In effect, these programs are assistance, but they are not incentives.

#### Vote neg—too late to clarify:

#### 1. Ground – “incentives” is the direct object of topical action, ALL negative strategies are premised off of it and clarification makes them a conditional moving target.

#### 2. Topic education—also turns solvency

**Arvizu, 7** - Director National Renewable Energy Laboratory (Dan, CQ Congressional Testimony, “ENCOURAGING SOLAR ENERGY,” 6/19, lexis

We applaud the Committee for its continuing examination of solar and other sources of renewable electricity and fuels. If we are to ensure the nation receives the full range of benefits that renewable energy technologies can provide, we will need a carefully balanced blend of new technology, market acceptance and government policies. It is not a question of whether to rely solely on the market, or on new research, or on government action, as we work to solve our energy problems. To accelerate deployment of renewable energy technologies, we need to effectively combine all three. It's also crucial that this mix of technology, markets and policies be crafted so that each works in conjunction with the others. The reality is that distinct renewable energy technologies - be they solar photovoltaic, solar thermal, wind, biomass power, biofuels or geothermal - are in different places in terms of their economics, technological maturity and market acceptance. While a broad range of policies are needed to spur on these varied technologies, the specifics of policies and incentives to be enacted ideally must be tailored to fit the unique requirements of each of the systems and devices we are seeking to deploy.

### CP

#### We advocate the following counterfactual counterplan:

#### The fifty state governments should institute utility profit decoupling policies.

#### Traditional state policy encourages utilities to sell as much electricity as possible—the counterplan creates a utility-driven incentive for efficiency

**Hendricks et al 2010** – \*Senior Fellow at American Progress, special assistant to VP Gore, the NOAA, and the President’s Council on Sustainable Development, \*\*JD Yale, Board member, Energy Resource Management Corp, \*\*\*Director of Research for Equilibrium Capital Group (September, Bracken Hendricks, Bill Campbell, Pen Goodale, Center for American Progress, “Efficiency Works”, http://www.americanprogress.org/issues/2010/08/pdf/good\_jobs\_new\_markets.pdf, WEA)

When energy efficiency on customer premises reduces energy use, utility sales can ¶ decline. When rates are only reset every few years, selling lesser amounts of energy ¶ can cause challenges to a utility’s operating budget, and will adversely affect ¶ profits in utilities that are owned by shareholders (called “investor-owned utilities” ¶ or IOUs, to distinguish them from not-for-profit cooperatives, people’s utility ¶ districts, or municipal utilities). So utilities hurt themselves by selling less energy. ¶ Utilities are thus financially disincentivized to make energy efficiency work. This ¶ misalignment of incentives is often credited for the low levels of commitment to ¶ energy efficiency within energy markets. ¶ “Decoupling” addresses this problem. The term refers to a change in the way ¶ rates are set by regulatory bodies. In both traditional and a “decoupled” rate ¶ structures, regulatory bodies generally set the price per unit of energy to permit ¶ recovery of all appropriate operating and capital costs. This includes a fair return ¶ on invested shareholder capital, or in other words, profit. This regulatory process ¶ is designed to produce “fair and reasonable” rates for both utilities and customers. ¶ Establishing the right rates per unit therefore requires an estimate of the number ¶ of units that will be sold. Utilities are financially incented to be conservative in ¶ their outlook, because if the estimate of energy to be sold is too high, there will be ¶ insufficient revenues to cover all operating expenses and cost of capital.¶ In a traditional rate structure, once the unit price is set, it generally remains fixed ¶ between rate cases. Thus the utility’s revenue is “coupled” to the number of units ¶ actually sold. Although the purpose of the rate setting is to permit recovery of ¶ appropriate operating expenses and cost of capital, utilities can do better than ¶ their regulated rates of return if they can sell more units than projected. Similarly, ¶ if they sell fewer units than projected, they will lose money and put operations at ¶ risk. It is this “coupling” that produces the incentive to sell more and the disincentive to drive energy efficiency. ¶ In a “decoupled” rate structure, by contrast, utility rates are frequently reset to ¶ adjust for the actual number of units sold, taking into account retrospective as ¶ well as prospective units. Thus utility revenues are disconnected, or “decoupled,” ¶ from volume of units sold. Utilities are assured of collecting the revenues they ¶ need to operate, and so are less at risk. Consumers get the benefit of that reduced ¶ risk, both through an adjustment to the regulated rate of return (lowered to reflect ¶ the lower risk) and through lower average rates directly. ¶ Decoupled rate structures also fundamentally change utility financial incentives as ¶ they relate to energy efficiency. Now, reducing units sold will not adversely affect ¶ utility revenues. In this sense, utilities face no disincentive to participate in the ¶ efficiency process—and if their regulators will permit it, investor-owned utilities ¶ can increase shareholder profits by investing their shareholders’ money in reducing consumption.18

#### Solves the aff better—arguments about diminishing returns are false

**Gies 2010** – energy/environment writer for NYT and the Trust for Public Land (9/1, Erica, NYT, Special Report: Energy, “Doing More While Using Less Power”, http://www.nytimes.com/2010/09/02/business/global/02iht-rensave.html?\_r=1&sq=17%20percent&st=cse&scp=3&pagewanted=all, WEA)

\*NOTE: citing David Goldstein, PhD in physics from UC Berkeley, Fellow of the American Physical Society, MacArthur Fellow

Experts say that economy-wide efficiency improvements could have a head-turning effect on the U.S. energy mix, helping to halt climate change, reduce energy insecurity and fix the economy. Yet in the vociferous debate about how to get off fossil fuels, efficiency has taken a back seat — partly because of the difficulty of talking about it concretely.

“It’s harder to talk about something that doesn’t exist, that you don’t produce,” said Cathy Zoi, the assistant secretary for energy efficiency and renewable energy at the U.S. Energy Department.

Highlighting this blind spot is a recent book, “Invisible Energy: Strategies to Rescue the Economy and Save the Planet,” by David Goldstein, a physicist who won the MacArthur genius award in 2002 and works as energy program director at the Natural Resources Defense Council, a nonprofit environmental advocacy group.

Mr. Goldstein argues that the United States could reduce its projected energy consumption 88 percent by 2050, and that a 30 percent reduction is possible by 2020.

Other estimates are somewhat lower. The National Academy of Sciences study, on which he was a consultant, found that projected U.S. consumption could be cut 17 percent to 20 percent by 2020. McKinsey & Co., using prerecession consumption projections, put the potential reduction at 23 percent by 2020. The American Council for an Energy-Efficient Economy, an efficiency advocacy group, estimates the savings at 17 percent to 20 percent over the period, and 40 percent to 60 percent by 2050.

But Mr. Goldstein stands by his figures. “I found it very frustrating because if you’re trying to do this in a sound, scientific way, you’ll find that you’re faced with a tradeoff” between being believable and being right, he said during an interview.

Mr. Goldstein looks at what is possible; other reports tally what is likely. Ms. Zoi said she had worked with Mr. Goldstein on efficiency issues for many years. “He pushes the envelope with the technical potential and he helps to define the debate,” she said.

Mr. Goldstein argues that mistaken assumptions in mainstream studies have led them to greatly undervalue the potential gains. For example, he says, most look only at current technology without taking adequate account of technological change.

Steve Nadel, executive director of the energy efficiency council, agrees. “Even things like LED lighting and smart manufacturing, technologies in which we’re investing lots of money to make them a reality, are not usually included in these studies,” he said.

The academy report, for one, only counted existing technologies, Mr. Lave said, acknowledging that it probably underestimated true potential as a result. “The unlikely thing is that there will be no technological advances over what we have available today,” he said.

#### And, it’s temporally competitive—gotta increase efficiency BEFORE grasping for production fixes

**Sovacool and Watts 2009** – \*Assistant Professor at the Lee Kuan Yew School of Public Policy at the National University of Singapore, Research Fellow in the Energy Governance Program at the Centre on Asia and Globalization, \*\*renewable energy consultant and the CEO of the Sustainable Electricity Association New Zealand (May, Benjamin and Charmaine, The Electricity Journal, 22.4, “Going Completely Renewable: Is It Possible (Let Alone Desirable)?”, http://www.precaution.org/lib/going\_renewable.101228.pdf, WEA)

This section lays out a seven-step policy agenda for how policymakers and regulators in New Zealand, the United States, and other countries could harness the world’s vast renewable resources, and accomplish a 100 percent renewable power sector by 2020. When reading our list of seven policy recommendations relating to energy efﬁciency, elimination of subsidies, standardization, feed-in tariffs, grid interconnection, permitting, and information, three caveats must be mentioned. First, our list is not exhaustive and does not include every possible policy mechanism. However, it does highlight what we believe to be the combined tools most effective at promoting renewable power. Second, the sequence of the mechanisms is important. Promoting energy efﬁciency and eliminating subsidies for undesirable technologies augments the effectiveness of the mechanisms to follow. Third, the list is also noteworthy for what is excluded. It emphasizes that some mechanisms, such as investment tax credits or R&D expenditures, may be less important at promoting some renewables now that they have reached technological maturity and are cost-competitive with conventional resources.

A. Promote energy efﬁciency

Regulators should ﬁrst aggressively implement demand-side management programs and maximize investments in energy efﬁciency. Almost all electric utilities can save electricity more cheaply than the cost of operating existing plants, meaning efﬁciency can improve cash ﬂow, appease investors, and save consumers’ money at the same time. For example, the average DSM program saves electricity at a cost of between 2.1 and 3.2¢/ kWh, making it well below the cost of supplying electricity (regardless of the source). Investing in energy efﬁciency also means that less renewable supply has to be built to fulﬁll customer demand, and it displaces the need to build new transmission and distribution lines. Energy efﬁciency operates automatically through customers coincident with the use of underlying equipment, meaning it is always ‘‘on’’ and ‘‘dispatched’’ without delay or the needed intervention by system operators. One kWh saved can also be worth more than one kWh generated, since a kWh saved displaces reserve capacity along with dispatched generation (usually 1 kWh of energy efﬁciency offsets 1.18 kWh of total electricity capacity during peak times). 35 Lastly, targeted DSM programs can accrue huge savings. In many electric utility systems, about 10 percent of generation capacity is tapped only 1 percent of the time, and less than 1 percent of industrial customers constitute greater than 30 percent of total electricity demand. Relatively small DSM programs directed at a miniscule proportion of electricity customers or generators can produce mammoth beneﬁts in terms of total demand reductions.

### DA

#### The problem with solar isn’t determinism, it’s that it would work TOO well—makes it impossible for utilities to profit, resulting in higher electricity prices

**Burr, 12** – editor in chief of Public Utilities Fortnightly (Michael, “Rooftop Tsunami; Utilities sound the alarm as PV nears grid parity” PUBLIC UTILITIES FORTNIGHTLY, July, lexis)

From the utility's point of view, a growing wave of rooftop PV projects is starting to look ominous. And now, some utilities are taking action to shore up their defenses--advocating legislative and regulatory changes that pull back net metering policies and other solar incentives. Concerns focus in part on operational challenges from integrating dispersed generation that's variable, non-dispatchable, and sometimes beyond the utility's ability to control. But the biggest worry seems to involve the prospect of a fixed-costs dilemma, which I addressed in this column last issue. (see "Facing Facts," Fortnightly, June 2012). The shorthand is this: As PV gets cheaper, an increasing number of PV-owning customers will pay less than their fair share of utility system costs, leaving a shrinking number of non-solar customers to pick up the tab for keeping the lights on. Although PV's market penetration is tiny today, it's growing rapidly enough to raise real concerns for many utilities.

"Distributed generation is becoming one of the largest subsidies on our system," said Ron Litzinger, president of Southern California Edison, during a panel discussion at this year's Edison Electric Institute Annual Convention. "That subsidy tends to go from low-income to higher-income customers. We need to make sure all the costs of distributed generation are known before decisions are made.

"Left unchecked, we could see rates increase by 40 to 50 percent by 2020, which we know isn't sustainable."

#### Raising energy costs causes hundreds of thousands of systemic deaths among the poor

**Center for Energy and Economic Development, 5** – quoting a study from Harvey Brenner, a professor of Health Policy and Management at the Johns Hopkins University (“The Linkage of Economic Prosperity and Low-cost Energy to Improved Public Health”, <http://www.ceednet.org/docs/Brenner%20Manifesto%20final.pdf>

Federal, state, and local policymakers concerned about the relationship between energy, the environment, and health should become familiar with the work of M. Harvey Brenner, PhD., an internationally noted expert in the fields of economics and public health. Dr Brenner’s research demonstrates that macroeconomic factors—and energy costs—play a leading role in human health. In 2005, Dr. Brenner published two important articles based on his update of research he originally conducted for the Congressional Joint Economic Committee. These articles are summarized below.

International Journal of Epidemiology, July 2005

In his article, “Economic Growth Is the Basis of Mortality Rate Decline in the 20th Century,” Dr. Brenner noted, “It is now among the firmest of epidemiological findings, across industrial societies, that socioeconomic status is inversely related to health status.” In other words, higher income reduces the odds of premature death; lower income increases morbidity and mortality.

Since 1984, at least seventeen European and U.S. studies have found higher income, employment security, and improved “socioeconomic status” can reduce an individual’s risk of disease and premature death. Brenner’s work contributes significantly to this body of research. According to Brenner, “Economic growth, cumulatively over at least a decade, is the central factor in mortality rate decline in the U.S. over the 20th century.”

In his earlier research for the Congressional Joint Economic Committee, Brenner determined that growth in “the long-term trend in Gross Domestic Product per capita was the fundamental source of increased life expectation.” However, he noted, “volatility of changes in that growth was – in the very short-term – a source of increased mortality.” Such volatility, which can lead to longer-term unemployment and place the unemployed at risk for a downturn in socioeconomic status, introduces significant risk to health and life expectancy through “increased exposure to alcoholism and use of other psychotropic substances such as tobacco and less expensive/nutritious foods.”

Brenner concluded, “It is crucial to place the health impact of the small oscillations represented by annual changes in economic growth into the broader context of the principal…trends of economic development,” however, “…the net effect of increased unemployment is a substantial increase in mortality.”

EM, November 2005

EM (the Air and Waste Management Association’s journal for environmental managers) published a case study relating Dr. Brenner’s work to the cost of energy. In “Health Benefits of Low-Cost Energy: An Econometric Case Study.” Dr. Brenner stated that key economic factors leading to improvements in the national economy mean longer life and reduced rates of mortality. Conversely, he found strong evidence that decreased per capita income and greater unemployment contribute to increased mortality. The key macro-economic factors Brenner identified in his research are 1) real GDP per capita, 2) the employment ratio, 3) unemployment rate, and 4) the interaction between GDP and unemployment as coincident and lagging business cycle indicators.

In particular, Brenner stated “the damaging effects of increased unemployment and acute business cycle disturbances” are key drivers of overall mortality trends and are as robust and statistically significant as the benefits of higher income and stable employment. Brenner acknowledged that health-risk factors (such as obesity, tobacco consumption, cholesterol levels, and family history) are also important predictors of human health and mortality. He found, however, that “while known risk factors to health, such as high consumption of tobacco, alcohol, and fatty foods, are additionally significant predictors of mortality, they are subordinate to the main economic predictors [the four macro-economic factors above] that routinely influence mortality.”

As a consequence, when Brenner applied his econometric model to a hypothetical regulatory case study in which higher-cost fuels displace U.S. coal to generate electricity, he discovered the adverse impact on household income and unemployment could result in 195,000 additional premature deaths annually. That figure is on the low end of a range between 171,000 and 369,000 deaths.

According to Brenner, his case study results can be applied to specific policies affecting coal-fueled electricity generation. For example, the U.S. Department of Energy estimated that certain climate change policies proposed in the U.S. Congress could result in up to 78% of U.S. coal-based generation being replaced by higher-cost energy sources. In that instance, Brenner believes that “increased mortality rates would result from decreased household income and increased unemployment associated with a shift to higher cost energy supply options, absent any direct mitigation programs that effectively prevented or offset these effects.”

Brenner added, “The technological bases of long-term economic growth continue to involve the harnessing of energy supplies to enable humans to produce more per unit of labor or capital investment. The economic growth that continuously improves human life expectancy requires access to affordable energy. In this fundamental sense, any policy change that reduces economic growth or raises the level of unemployment should be defined and addressed as a public health issue requiring an economic policy response that limits or offsets these results.”

#### cost-shift impacts are more pronounced for rural, poorer customers

**Morrison, 4 -** joined the National Rural Electric Cooperative Association as regulatory counsel in June 1998 (Jay, Council on State Governments, “Renewable Energy Policy: Promoting New State Strategies” <http://www.csg.org/knowledgecenter/docs/spec_su04.pdf#page=9>)

It is also critical that the cost of subsidies be spread broadly to everyone in a state. Some proponents of renewable energy would provide support by requiring utilities to absorb some of the costs caused by renewable generators, such as the cost of system upgrades or standby service. Others would require utilities to purchase renewable energy at a price that exceeds the value of the power.9

These proposals all shift costs to other consumers on the system. The cost shift may not be serious for a large utility that serves over 1 million customers. But, such cost shifts could be unduly burdensome for customers of the small utilities that serve the rural communities where most renewable energy projects will be located. Rather than spreading the cost of a subsidy across over 1 million consumers, the cost might have to be borne by just a few thousand.10

### K

#### Solar power is a Trojan horse for corporatization of tech—they can’t control the consumerist deployment toward unsustainable ends

**Glover et al 2006** – \*Policy Fellow at the Center for Energy and Environmental Policy, University of Delaware, \*\*Directs the Urban Studies and Wheaton in Chicago programs, selected to the Chicago Council on Global Affairs Emerging Leaders Program for 2011-2013, \*\*\*2007 Nobel Peace Prize winner, Distinguished Professor of Energy & Climate Policy at the University of Delaware, Head of the Center for Energy and Environmental Policy (Leigh Glover, Noah Toly, John Byrne, “Energy as a Social Project: Recovering a Discourse”, in “Transforming Power: Energy, Environment, and Society in Conflict”, p. 1-32, http://www.ceep.udel.edu/energy/publications/2006\_es\_energy\_as\_a\_social\_project.pdf, WEA)

The Sustainable Energy Quest¶ The problems of the conventional energy order have led some to regard¶ reinforcement of the status quo as folly and to instead champion sustainable¶ energy strategies based upon non-conventional sources and a more intelligent ideology of managed relations between energy, environment, and society consonant with environmental integrity. This regime challenger seeks to¶ evolve in the social context that produced the conventional energy regime,¶ yet proposes to fundamentally change its relationship to the environment (at¶ least, this is the hope). Technologies such as wind and photovoltaic electricity are purported to offer building blocks for a transition to a future in which¶ ills plaguing modernity and unsolved by the conventional energy regime¶ can be overcome (Lovins, 1979; Hawken et al., 2000; Scheer, 2002; Rifkin,¶ 2003; World Bank, 2004b).¶ While technical developments always include social, material, ecological, intellectual, and moral infrastructures (Winner, 1977: 54 - 58; Toly, 2005),¶ and may, therefore, be key to promoting fundamentally different development pathways, it is also possible that **technologies, even environmentally**¶ **benign ones, will be appropriated by social forces that predate them and**,¶ **thereby, can be thwarted in the fulfillment of social promises attached to the**¶ **strategy**. Indeed, if unaccompanied by reflection upon the social conditions¶ in which the current energy regime thrives, the transition to a renewable¶ energy regime may usher in very few social benefits and little, if any, political¶ and economic transformation. This is the concern that guides our analysis¶ (below) of the sustainable energy movement.¶ At least since the 1970s when Amory Lovins (1979) famously posed the¶ choice between “hard” and “soft” energy paths, sustainable energy strategies¶ have been offered to challenge the prevailing regime. Sometimes the promise¶ was of no more than “alternative” and “least cost” energy (Energy Policy¶ Project of the Ford Foundation, 1974a, 1974b; O’Toole, 1978; Sant, 1979),¶ but adjectives such as “appropriate,” “natural,” “renewable,” “equitable,”¶ and even “democratic” have also been envisioned (Institute for Local SelfReliance, 2005; Scheer, 2002: 34).¶ 16¶ The need to depart from the past, especially in light of the oil crises of the 1970s and the energy-rooted threat of¶ climate change that has beset policy debate since the late 1980s, united¶ disparate efforts to recast and reconceive our energy future.¶ Partly, early criticisms of the mainstream were reflective of a broader social¶ agenda that drew upon, among other things, the anti-war and anti-corporate¶ politics of the 1960s. It was easy, for example, to connect the modern energy¶ regime to military conflicts of the period and to superpower politics; and it¶ was even easier to ally the mainstream’s promotion of nuclear power to the¶ objectives of the Nuclear Club. With evidence of profiteering by the oil¶ majors in the wake of the 1973-1974 OPEC embargo, connecting the energy¶ regime with the expanding power of multinational capital was, likewise, not¶ difficult. Early sustainable energy strategies opposed these alliances, offering promises of significant political, as well as technological, change.¶ However, in the thirty years that the sustainable energy movement has¶ aspired to change the conventional regime, its social commitments and politics have become muddled. A telling sign of this circumstance is the shifted¶ focus from energy politics to economics. To illustrate, in the celebrated work¶ of one of the movement’s early architects, subtitles to volumes included¶ “breaking the nuclear link” (Amory Lovins’ Energy/War, 1981) and “toward¶ a durable peace” (Lovins’ Soft Energy Paths, 1979). These publications offered poignant challenges to the modern order and energy’s role in maintaining that order.¶ Today, however, the bestsellers of the movement chart a course toward¶ “natural capitalism” (Hawken et al., 2000), a strategy that anticipates synergies between soft path technologies and market governance of energy-environment-society relations. Indeed, a major sustainable energy think tank has¶ reached the conclusion that “small is profitable” (Lovins et al., 2002) in¶ energy matters and argues that the soft path is consistent with “economic¶ rationalism.” Understandably, a movement that sought basic change for a¶ third of a century has found the need to adapt its arguments and strategies to¶ the realities of political and economic power. Without adaptation, the conventional energy regime could have ignored soft path policy interventions¶ like demand-side management, integrated resource planning, public benefits¶ charges, and renewable energy portfolio standards (see Lovins and Gadgil,¶ 1991; Sawin, 2004), all of which have caused an undeniable degree of decentralization in energy-society relations. In this vein, it is clear that sustainability¶ proponents must find ways to speak the language and communicate in the¶ logic of economic rationalism if they are to avoid being dismissed. We do not¶ fault the sustainable energy camp for being strategic. Rather, the concern is¶ whether victories in the everyday of incremental politics have been balanced¶ by attention to the broader agenda of systemic change and the ideas needed¶ to define new directions.¶ A measure of the sustainable energy initiative’s strategic success is the¶ growing acceptance of its vision by past adversaries. Thus, Small is Profitable was named ‘Book of the Year’ in 2002 by The Economist, an award¶ unlikely to have been bestowed upon any of Lovins’ earlier works. As acceptance has been won, it is clear that sustainable energy advocates remain¶ suspicious of the oil majors, coal interests, and the Nuclear Club. But an¶ earlier grounding of these suspicions in anti-war and anti-corporate politics¶ appears to have been superseded by one that believes the global economy¶ can serve a sustainability interest if the ‘raison de market’ wins the energy¶ policy debate. Thus, it has been suggested that society can turn “more profit¶ with less carbon,” by “harnessing corporate power to heal the planet” (Lovins,¶ 2005; L. H. Lovins and A. B. Lovins, 2000). Similarly, Hermann Scheer (2002:¶ 323) avers: “The fundamental problem with today’s global economy is not¶ globalization per se, but that this globalization is not based on the sun—the¶ only global force that is equally available to all and whose bounty is so great¶ that it need never be fully tapped.” However, it is not obvious that market¶ economics and globalization can be counted upon to deliver the soft path¶ (see e.g. Nakajima and Vandenberg, 2005). More problematic, as discussed¶ below, the emerging soft path may fall well short of a socially or ecologically¶ transforming event if strategic victories and rhetorics that celebrate them¶ **overshadow systemic critiques** of energy-society relations and the corresponding need to align the sustainable energy initiative with social movements to¶ address a comprehensive agenda of change.¶ Catching the Wind¶ To date, the greatest success in ‘real’ green energy development is the¶ spread of wind power. From a miniscule 1,930 MW in 1990 to more than¶ 47,317 MW in 2005, wind power has come of age. Especially noteworthy is¶ the rapid growth of wind power in Denmark (35 percent per year since 1997),¶ Spain (30 percent per year since 1997), and Germany (an astonishing 68¶ percent per year since 2000), where policies have caused this source to threaten¶ the hegemony of fossil fuels and nuclear energy. Wind now generates more¶ than 20 percent of Denmark’s electricity and the country is the world leader in¶ turbine manufacture. And as the Danes have demonstrated, offshore wind has¶ the potential to skirt some of the land-use conflicts that have sometimes beset¶ renewable energy alternatives. Indeed, some claim that offshore wind alone¶ might produce all of Europe’s residential electricity (Brown, 2004). National¶ energy strategists and environmental movements in and beyond Europe have¶ recognized the achievements of the Danes, Spaniards, and Germans with initiatives designed to imitate their success.¶ What are the characteristics of this success? One envied feature is the¶ remarkable decline in the price of wind-generated electricity, from $0.46 per¶ kWh in 1980 to $0.03 to $0.07 per kWh today (Sawin, 2004), very close to¶ conventionally-fueled utility generating costs in many countries, even before environmental impacts are included. Jubilant over wind’s winning market performance, advocates of sustainable energy foresee a new era that is¶ ecologically much greener and, yet, in which electricity remains (comparatively) cheap. Lester Brown (2003: 159) notes that wind satisfies seemingly¶ equally weighted criteria of environmental benefit, social gain, and economic efficiency:¶ Wind is...clean. Wind energy does not produce sulfur dioxide emissions or nitrous¶ oxides to cause acid rain. Nor are there any emissions of health-threatening mercury¶ that come from coal-fired power plants. No mountains are leveled, no streams are¶ polluted, and there are no deaths from black lung disease. Wind does not disrupt the¶ earth’s climate...[I]t is inexhaustible...[and] cheap.¶ This would certainly satisfy the canon of economic rationalism.¶ It is also consistent with the ideology of modern consumerism. Its politics¶ bestow sovereignty on consumers not unlike the formula of Pareto optimality,¶ a situation in which additional consumption of a good or service is warranted¶ until it cannot improve the circumstance of one person (or group) without¶ decreasing the welfare of another person (or group).¶ 17¶ How would one know¶ “better off” from “worse off” in the wind-rich sustainable energy era? Interestingly, proponents seem to apply a logic that leaves valuation of “better” and¶ “worse” devoid of explicit content. In a manner reminiscent of modern economic thinking, cheap-and-green enthusiasts appear willing to set wind to¶ the task of making “whatever”—whether that is the manufacture of low-cost¶ teeth whitening toothpaste or lower cost SUVs. In economic accounting, all¶ of these applications potentially make some in society “better off” (if one¶ accepts that economic growth and higher incomes are signs of improvement).¶ Possible detrimental side effects or externalities (an economic term for potential harm) could be rehabilitated by the possession of more purchasing power,¶ which could enable society to invent environmentally friendly toothpaste¶ and make affordable, energy-efficient SUVs. Sustainable energy in this construct cooperates in the abstraction of consumption and production. Consumption-of-what, -by-whom, and -for-what-purpose, and, relatedly,¶ production-of-what, -by-whom, and -for-what-purpose are not issues. The¶ construct altogether ignores the possibility that “more-is-better” consumption-production relations may actually reinforce middle class ideology and¶ capitalist political economy, as well as contribute to environmental crises¶ such as climate change. In the celebration of its coming market victory, the¶ cheap-and-green wind version of sustainable energy development may not¶ readily distinguish the economic/class underpinnings of its victory from those¶ of the conventional energy regime.¶ Wind enthusiasts also appear to be largely untroubled by trends toward¶ larger and larger turbines and farms, the necessity of more exotic materials to¶ achieve results, and the advancing complications of catching the wind. There¶ is nothing new about these sorts of trends in the modern period. The trajectory of change in a myriad of human activities follows this pattern. Nor is a¶ critique per se intended in an observation of this trend. Rather, the question¶ we wish to raise is whether another feature in this pattern will likewise be¶ replicated—namely, a “technological mystique” (Bazin, 1986) in which social life finds its inspiration and hope in technical acumen and searches for¶ fulfillment in the ideals of technique (Mumford, 1934; Ellul, 1964; Marcuse,¶ 1964; Winner, 1977, 1986; Vanderburg, 2005).¶ This prospect is not a distant one, as a popular magazine recently illustrated. In a special section devoted to thinking “After Oil,” National Geographic approvingly compared the latest wind technology to a well-known¶ monument, the Statue of Liberty, and noted that the new machines tower¶ more than 400 feet above this symbol (Parfit, 2005: 15 - 16). It was not hard to¶ extrapolate from the story the message of Big Wind’s liberatory potential.¶ Popular Science also commended new wind systems as technological marvels, repeating the theme that, with its elevation in height and complexity¶ lending the technology greater status, wind can now be taken seriously by¶ scientists and engineers (Tompkins, 2005). A recent issue of The Economist¶ (2005) included an article on the wonder of electricity generated by an artificial tornado in which wind is technologically spun to high velocities in a¶ building equipped with a giant turbine to convert the energy into electricity.¶ Indeed, wind is being contemplated as a rival able to serve society by the¶ sheer technical prowess that has often been a defining characteristic of modern energy systems.¶ Obviously, wind energy has a long way to go before it can claim to have¶ dethroned conventional energy’s “technological cathedrals” (Weinberg,¶ 1985). But its mission seems largely to supplant other spectacular methods of¶ generating electricity with its own. The politics supporting its rapid rise¶ express no qualms about endorsing the inevitability of its victories on tech-¶ nical grounds. In fact, Big Wind appears to seek monumental status in the¶ psyche of ecologically modern society. A recent alliance of the American¶ Wind Energy Association and the U.S. electric utility industry to champion¶ national (subsidized) investment in higher voltage transmission lines (to¶ deliver green-and-cheap electricity), illustrates the desire of Big Wind to¶ plug into Giant Power’s hardware and, correspondingly, its ideology (see¶ American Wind Energy Association, 2005, supporting “Transmission Infrastructure Modernization”). The transformative features of such a politics are¶ unclear. Indeed, wind power—if it can continue to be harvested by everlarger machines—may penetrate the conventional energy order so successfully that it will diffuse, without perceptible disruption, to the regime. The air¶ will be cleaner but the source of this achievement will be duly noted: science¶ will have triumphed still again in wresting from stingy nature the resources¶ that a wealthy life has grown to expect. Social transformation to achieve¶ sustainability may actually be unnecessary by this political view of things, as¶ middle-class existence is assured via clean, low-cost and easy-to-plug-in wind¶ power.¶ **Small-is-Beautiful Solar18**¶The second fastest growing renewable energy option—solar electric¶ power—is proving more difficult to plug in. Despite steady declines in the¶ cost per kWh of energy generated by photovoltaic (PV) cells, this alternative¶ remains a pricey solution by conventional standards. Moreover, the technology does not appear to have significant scale economies, partly because the¶ efficiency of PV cannot be improved by increasing the size of the device or its¶ application. That is, unit energy costs of large installations of many PV arrays¶ do not deviate appreciably from those for small installations comprised of¶ fewer arrays. Instead, the technology seems to follow a modular economic¶ logic in which unit costs neither grow nor decline with scale. Some have¶ praised this attribute, suggesting that PV’s modularity means there are no¶ technical or economic reasons for scaling its application to iconic levels that¶ conventional power plants now represent, potentiating a more robust system¶ of distributed generation and delivering clean energy to previously¶ marginalized populations (Martinot and Reiche, 2000; Martinot et al., 2002).¶ Small-Is-Beautiful Solar is attributed with social empowerment potential¶ by Vaitheeswaran (2003: 314) who notes that PV (and other small scale electricity generation technologies) can overcome social barriers through a “collision of clean energy, microfinance, and community empowerment,” three¶ properties that may lift the burden of poverty and promote democratic social¶ relations. “Micropower,” he argues (2003: 314), “is beginning to join forces¶ with village power.” Thus, it would seem that a Solar Society might depend¶ upon a different politics than Big Wind in displacing a fossil and nuclear¶ energy driven world economy.¶ Perhaps because PV has, so far, found wider social usage in rural contexts¶ where poverty (as modernly conceived) persists, discussions, in fact, crop up¶ about solar’s social project. For example, arguments have formed around the¶ gender interests of PV, at least as it has been diffused in rural life to date (see,¶ for example, Allerdice and Rogers, 2000). And criticism has surfaced about¶ PV’s ‘capture’ by the state as a tool to quiet, if not mollify, the rural poor¶ (Okubo, 2005: 49 - 58). There has even been a charge that PV and other¶ renewables are being used by multilateral organizations such as the World¶ Bank to stall Southern development. By imposing a fragmented patchwork¶ of tiny, expensive solar generators on, for example, the African rural landscape, instead of accumulating capital in an industrial energy infrastructure,¶ the World Bank and other actors are accused of being unresponsive to the¶ rapid growth needs of the South (Davidson and Sokona, 2002; Karekezi and¶ Kithyoma, 2002). A related challenge of PV’s class interests has raised questions about the technology’s multinational corporate owners and offered¶ doubts about successful indigenization of solar cell manufacturing (AbleThomas, 1995; Guru, 2002: 27; Bio-Energy Association of Sri Lanka, 2004:¶ 20). Regardless of one’s position on these debates, it is refreshing to at least¶ see solar energy’s possible political and economic interests considered.¶ But PV’s advocates have not embraced the opportunities created by its¶ rural examiners to seriously investigate the political economy of solar energy. The bulk of solar research addresses engineering problems, with a modest social inquiry focused on issues of technological transition in which solar¶ electricity applications are to find their way into use with as little social¶ resistance or challenge as possible. A green politics that is largely unscarred¶ by conflict is, and for a long time has been, anticipated to characterize an¶ emergent Solar Society (Henderson, 1988; Ikeda and Henderson, 2004). Likewise, **solar economics is thought to be consensual** as non-renewable options¶ become too expensive and PV cells, by comparison, too cheap to be refused¶ their logical role (see, for example, Henderson, 1995, 1996; Rifkin, 2003). It¶ seems that a solarized social order is inevitable for its proponents, with technological breakthrough and economic cost the principal determinants of when¶ it will arrive.¶ In this regard, ironically, Small-is-Beautiful Solar shares with Big Wind ¶ the aspiration to re-order the energy regime without changing society. Despite modern society’s technological, economic, and political addiction to¶ large-scale, cheap energy systems that solar energy cannot mimic, most PV¶ proponents hope to revolutionize the technological foundation of modernity, without disturbing its social base. A new professional cadre of solar¶ architects and engineers are exhorted to find innovative ways of embedding¶ PV technology in the skin of buildings (Strong, 1999; Benemann, Chehab,¶ and Schaar-Gabriel, 2001), while transportation engineers and urban planners are to coordinate in launching “smart growth” communities where vehicles are powered by hydrogen derived from PV-powered electrolysis to¶ move about in communities optimized for “location efficiency” (Ogden, 1999;¶ Holtzclaw et al., 2002). The wildly oversized ecological footprint of urban¶ societies (Rees and Wackernagel, 1996) is unquestioned as PV **decorates its**¶ **structure**.¶ These tools for erecting a Solar Society intend to halt anthropogenic¶ changes to the chemistry of the atmosphere, rain, and soil mantle while enabling unlimited economic growth. In the Solar Society of tomorrow, we will¶ make what we want, in the amounts we desire, without worry, because all of its¶ energy is derived from the benign, renewable radiation supplied by our galaxy’s¶ sun. Compared to Big Wind, PV may cost more but it promises to deliver an¶ equivalent social result (minus the avian and landscape threats of the former)¶ and, just possibly, with a technical elegance that surpasses the clunky¶ mechanicalness of turbines propelled by wind. In this respect, Solar Society¶ makes its peace with modernity by leaving undisturbed the latter’s cornucopian¶ dreams¶ 19¶ and, likewise, **poses no serious challenge** to the social and political¶ structures of the modern era.¶ At this precise point, inequality and conflict can only be conceived in¶ Solar Society as the results of willful meanness and greed. While the solar¶ variety of technological politics guiding society may be relatively¶ minimalist—no towering new monuments or spectacular devices are¶ planned—it would be no less committed to the ideals of technique in shaping¶ social experience and its self-assessment. Similarly, its economics would¶ warmly embrace a form of consumptive capitalism, although with cleaner¶ inputs (and possibly throughputs) than before.¶ While the discussion here of sustainable energy advocacy has concentrated on its wind- and solar-animated versions, we believe that strategies¶ anticipating significant roles for geothermal, biomass, micro-hydro, and hydrogen harvested from factories fueled by renewables anticipate variants of¶ the social narratives depicted for the two currently most prominent renewable¶ energy options. The aim of producing more with advancing ecological efficiency in order to consume more with equally advancing consumerist satisfaction underpins the sustainable energy future in a way that would seamlessly¶ tie it to the modernization project.¶ 20

#### Double true for counterfactuals—the backward-looking focus on the contingency and subjectivity of time offsets knowledge of the structuring effects of political economy

**Zavarzadeh 94** (Mas'Ud, The Stupidity That Consumption Is Just as Productive as Production": In the Shopping Mall of the Post-al Left," College Literature, Vol. 21, No. 3, The Politics of Teaching Literature 2 (Oct., 1994), pp. 92-114)

**The unsurpassable objectivity** which is **not open** to rhetorical **interpretation** and constitutes the decided foundation of critique is the "outside" that Marx calls the "Working Day" (Capital 1: 340-416). ([France] willfully misrecognizes my notion of objectivity by confusing my discussion of identity politics and objectivity.) The working day is not what it seems: its reality, like the reality of all capitalist practices, is an alienated reality-there is a contradiction between its appearance and its essence. It "appears" as if the worker, during the working day, receives wages that are equal compensation for his labor. This mystification originates in the fact that the capitalist pays not for "labor" but for "labor power": when labor power is put to use it produces more than it is paid for. The "working day" is the site of the unfolding of this fundamental contradiction: it is a divided day, divided into "necessary labor" the part in which the worker produces value equivalent to his wages and the "other," the part of "surplus labor"?a part in which the worker works for free and produces "surplus value." The second part of the working day is the source of profit and accumulation of capital. "Surplus labor" is the OBJECTIVE FACT of capitalist relations of production: without "surplus labor" there will be no profit, and without profit there will be no accumulation of capital, and without accumulation of capital there will be no capitalism. The goal of bourgeois economics is to conceal this part of the working day, and it should therefore be no surprise that, as a protector of ruling class interests in the academy, [Hill], with a studied casualness, places "surplus value" in the adjacency of "radical bible-studies" and quietly turns it into a rather boring matter of interest perhaps only to the dogmatic. To be more concise: "surplus labor" is that **objective, unsurpassable "outside**" that cannot be made part of the economies of the "inside" without capitalism itself being transformed into socialism. Revolutionary critique is grounded in this truth-objectivity-since all social institutions and practices of capitalism are founded upon the objectivity of surplus labor. The role of a revolutionary pedagogy of critique is to produce class consciousness so as to assist in organizing people into a new vanguard party that aims at abolishing this FACT of the capitalist system and trans-forming capitalism into a communist society. As I have argued in my "Postality" [Transformation 1], (post)structuralist theory, through the concept of "representation," makes all such facts an effect of interpretation and turns them into "undecidable" processes. The boom in ludic theory and Rhetoric Studies in the bourgeois academy is caused by the service it renders the ruling class: it makes the OBJECTIVE reality of the extraction of surplus labor a subjective one-not a decided fact but a matter of "interpretation." In doing so, it "deconstructs" (see the writings of such bourgeois readers as Gayatri Spivak, Cornel West, and Donna Haraway) the labor theory of value, displaces production with consumption, and resituates the citizen from the revolutionary cell to the ludic shopping mall of [France].

#### The impact is extinction—they just re-create the dangerous focus on technology that masks unsustainable and precludes other orientations

**Holleman 2012** – assistant professor of sociology at Amherst, PhD in sociology from the University of Oregon (June, Hannah, sociology dissertation, University of Oregon, “Energy justice and foundations for a sustainable sociology of energy”, https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/12419/Holleman\_oregon\_0171A\_10410.pdf?sequence=1, WEA)

As Marilyn Waring noted twenty years ago, under this system, when there is an ¶ environmental catastrophe, like the Exxon Valdez oil spill in Alaska, or the current BP oil ¶ spill in the Gulf, companies make an enormous profit cleaning up, or at least professing ¶ to do so. GDP goes up. If someone is sick, if they die a long, drawn-out death from ¶ cancer, there is profit to be made. There is no money to be made in human and ecological ¶ health and well-being. If communities grow their own food, the global food market ¶ significantly decreases; if people walk rather than drive, the oil and car companies don’t ¶ make money. If education is free, who benefits? Maybe most people, and the society at ¶ large, maybe even the environment, but not necessarily the shareholders. Therefore, it is ¶ much more economically efficient to let the market shape education. Today students take ¶ out larger and larger loans to buy more expensive books, to get less education engendered ¶ by fewer teachers. This is capitalist efficiency. The surplus is efficiently transferred from ¶ one segment of the population to another, those at the top. The same goes for letting the ¶ market shape energy policy. Those arguing today for market intervention in the climate ¶ crisis often fail to mention that it is absolutely already the market shaping energy policy. ¶ This is precisely the problem. It is very efficient for the market to extract oil at bargain ¶ prices from countries without militaries to stop them. It is very efficient, in terms of ¶ profit, to have the most vulnerable in society pay the costs of energy production, and to ¶ keep polluting, all the while terrifying people that new energy developments might be ¶ their only chance of economic survival. Nevermind where the real money goes and what ¶ happens with the boom goes bust.

The current version of capitalist ideology, which absorbs energy scholars (and ¶ even environmental socialists) often unwittingly, was consciously shaped to co-opt the ¶ language of social movements seeking freedom from the yolk of capitalism and ¶ imperialism. It is no surprise that the market would co-opt green rhetoric today. ¶ Economists having the greatest ideological influence on political debates and social ¶ science today, the architects of neoliberal ideology, have sought to re-write the history of ¶ capitalist development as “the constitution of liberty,” and the basis of free society ¶ (Hayek 1960; Friedman 1962; Van Horn, Mirowski, and Stapleford, eds. 2011). There ¶ can be no acknowledgement of slavery, racism, sexism, or ecological destruction among ¶ other issues, because all of these undermine the basic thesis neoliberal writers actively ¶ promote as political ideology. To make their argument, these writers must present ¶ capitalism as raising all boats, color-blind, gender-neutral, and free of class coercion, the ¶ globalization of which results in a “flat,” happy world, even if it is hot (Friedman 2005, ¶ 2008). Unfortunately, these ideas dominate the political sphere, and contemporary ¶ notions of organizational, community, and national development. In academia, many ¶ “theorists celebrate the alleged leveling of social differences owing to globalization”¶ (Pellow 2007, 41). The blinders imposed by this view continue to infect energy studies¶ despite the work of critical energy scholars.

Spreading capitalism thus becomes the solution for poverty associated with ¶ inequalities caused by oppression based on race, class, gender, and position in the world ¶ system, as well as the solution to environmental and energy crises. This is the basic ¶ modernization thesis. The Ecological Modernization Reader (Mol, Sonnenfeld, and ¶ Spaargaren 2009) presents these systematized views regarding the environmental crisis, ¶ which are increasingly influential in environmental sociology. York and Rosa (2003) and ¶ Foster (2012) have pointed out the empirical, theoretical, and philosophical roots of, and ¶ problems associated with this perspective as a basis for understanding ecological and ¶ social crises and solutions. But, we can expect this view to persist as long as social ¶ relations remain intact because the logic of modernization is seductive precisely because ¶ it is the logic of capitalism (Foster 1999b, 2002, 2009, 2012). The processes of ¶ capitalism, including its ideological developments, are the “background conditions” in ¶ which those integrated into the market economy live, as fish swim in water, they are the ¶ “**social gravity**” we might naturally feel is right, but don’t necessarily see, as much a part ¶ of our lives as the air we breathe (York and Clark 2006).

In contrast to the modernization thesis, environmental justice scholars, among ¶ other critical theorists and activists have sought to expose the mythological basis of ¶ neoliberalism and transcend the system. The work of environmental justice scholars, ¶ feminist ecologists, and ecological rift theorists, marshaling the empirical evidence, ¶ represent powerful critiques of the modernization thesis. Taken together with the insights ¶ in existing critical work on energy, they provide an alternative approach to energy that¶ **belies the notion that “there is no alternative.”** They share a common commitment, as ¶ social scientists and activists, to reality. Part of this reality is that “actual class and racial ¶ inequalities around the global and between North and South have only worsened in the ¶ past half-century—the same period during which the late modern state of capitalism took ¶ hold” (Pellow 2007, 41). Despite views that we live in a post-racial society, (or one ¶ where “men are finished and women are taking over” [Sohn 2011]), in fact economic ¶ globalization has “seriously undermined the gains of the civil rights and labor movement ¶ and the general antiracist struggle in the United States and undercut the global benefits of ¶ the anticolonial struggles occurring throughout the global South” (Pellow 2007, 43). ¶ Moreover, economic globalization and the intensified spread of ecological destruction ¶ “are intimately linked because the TNCs [transnational corporations] themselves were¶ the ones creating and pushing both globalization and toxins on the world markets, ¶ facilitating greater control over nations, communities, human bodies, and the natural ¶ world itself”(43).

Today, neoliberal mythology has severely hindered the development of a wider ¶ environmental justice consciousness in the broader public, and amongst activists and ¶ academics. In energy studies this view is especially pronounced in the focus on ¶ technology, carbon markets, voluntary certification schemes, and alternative energies that ¶ basically allow business to continue as usual (Foster 2002, 9-25; Rogers 2010; Holleman ¶ 2012). The critical literature emerging from what I call an energy justice perspective in ¶ ecological rift theory, systems ecology, feminist and critical human ecology, and ¶ environmental justice scholarship has drawn out the social and ecological crises of the ¶ current energy regime. This is in contrast to too many well-intentioned scholars and ¶ activists who buy into the main tenets of the modernization thesis, and thus are reluctant ¶ to break with capitalism as a system, or worse, they promote it, ignoring or ignorant of ¶ the enormous costs. This has led to the view that our task as environmentalists is getting ¶ economics to “internalize the externalities,” to bring under the pricing system the work of ¶ natural systems and human services (labor). For energy this means carbon markets and ¶ trade in other forms of pollution and raising energy prices. While it is clear that as long as ¶ we have this system, goals should include wealth redistribution and businesses ¶ shouldering the costs of their polluting practices, long-term, internalizing more of the ¶ world in the market system is a total death strategy. The logic of the market is clear. An ¶ energy justice movement, with the intention of healing the ecological rift and ¶ transcending social injustice, on the other hand has as its base the goal of “externalizing ¶ the internalities.” This is an ecological and social imperative.

Understanding the nature of the current system, Daniel Yergin’s worse-than-nothing approach to energy is the logical response of capital. Carbon markets and the ¶ new biotech boom also make sense. If the point is accumulation, sources of profit must ¶ be found at every turn and crises represent especially ripe opportunities (Klein 2007). The ¶ problem today is not capitalism’s lack of response to the climate crisis, capital was never ¶ developed as a system geared toward ecological reproduction or meeting human needs. It ¶ is a system geared toward profit at all cost and can have no rational response. The ¶ problem is that capitalism organizes so many of our productive activities in the first ¶ place. The sooner this is recognized, **the sooner we can start thinking of real alternatives**, ¶ and understand ourselves as subjects, not merely objects of the system, as protagonists of ¶ our own future. We can move beyond playing the passive consumers of the next product¶ capitalism has on offer, green or otherwise, packaged as a solution to energy crises. ¶ Examples like the carbon market schemes, or Daniel Yergin’s view of what constitutes ¶ energy revolution, make clear “that **there’s no way we can just subcontract** our ¶ **environmental conscience to** the **new** breed of **green marketers**” (McKibben 2010).

Energy and social inequality, the challenges of our generation

The social and ecological costs of our energy regime today are clear, though the ¶ ways these are both the result of and exacerbate social inequality and oppression are often ¶ misunderstood or ignored. While the future is unwritten, projections, if business ¶ continues as usual, indicate environmental and social catastrophe with much of the ¶ damage irreversible. Without significant social change, we should prepare for, among ¶ other depredations, increased warfare to secure energy resources to meet increased ¶ demand. The most recent British Ministry of Defence Strategic Trends report suggests ¶ that nations will increasingly use energy security “to challenge conventional ¶ interpretations on the legality of the use of force” (108). Environmentally and socially ¶ destructive energy sectors are projected to grow the next thirty years, such as nuclear ¶ energy and biofuel, while expected fossil fuel demand also goes only one way, up: ¶ Global Energy use has approximately doubled over the last ¶ 30 years and, by 2040, demand is likely to grow by more ¶ than half again. Despite concerns over climate change, ¶ demand is likely to remain positively correlated to ¶ economic growth with fossil fuels, meeting more than 80% ¶ of this increase. Urban areas will be responsible for over ¶ 75% of total demand. (Strategic Trends, 106) ¶ Even a U.S. government official has recognized publicly that “our patterns of energy use ¶ create geopolitical instability. The ways we use energy are disrupting the climate system ¶ and threaten terrifying disruptions in decades to come” (Sandalow 2009).

These realities only partially illustrate energy’s extensive contribution to what K. ¶ William Kapp (1950) referred to as capitalism’s systemic “unpaid costs.” As Anderson ¶ (1976) put it: “the growth society operates as if it had tunnel vision and nearsightedness; ¶ the accumulation of capital is pursued without regard for the side-effects or for longrange consequences, leaving to nature and the larger community these uncalculated ¶ costs” (140). Prefiguring contemporary discussions and movement framing, Anderson ¶ referred to these accumulated unpaid costs, or externalities as “the ecological debt,” the ¶ result of the exploitation of both nature and humans for the sake of economic growth at ¶ all costs (142-43), undermining the natural and social conditions of production.

As indicated previously, with energy demand expected only to increase as the ¶ economy expands, the “unpaid costs” associated with its extraction and use will continue ¶ to accumulate, but on a scale heretofore unseen. The science is clear that if we do not ¶ severely curtail energy use, we will cross critical thresholds in the biosphere’s ability to ¶ recycle waste and regulate the earth’s temperature. The consequences of crossing such ¶ **planetary boundaries** will be irreversible (Hansen 2009; Solomon, et al. 2009; Cullen ¶ 2010; Foster 2011).

This is a new juncture in humanity’s relation to the rest of nature. However, the ¶ costs of climate change, among other environmental crises generated by energy ¶ production and use, which is driven largely by economic growth, already are visited upon ¶ communities and other social groups in a dramatically unequal way––this we may ¶ understand as a defining feature of energy injustice. This social inequality, indeed, is a ¶ necessary feature of capitalism, making human exploitation and the assault on the ¶ environment possible, and energy injustice inevitable in the current system:

“Environmental deterioration will continue so long as there is a class system, since the ¶ profits of environmental neglect accrue primarily to one class whereas the costs are borne ¶ primarily by another” (Anderson 1976, 139). Scholars studying the ecological and social ¶ rift of capitalism, including those working on environmental racism and feminist ecology, ¶ have expanded the understanding of how these processes are gendered and racialized. ¶ Work on unequal ecological exchange amply has demonstrated that inequality between ¶ nations and regions also increases the burdens of environmental injustice. Studies from ¶ all of these perspectives have drawn out inequalities embedded in our current patterns of ¶ energy decision-making, extraction, use, and waste disposal, documenting energy ¶ injustice through various theoretical lenses.

#### Vote neg--neoliberal frameworks unsustainable and insulate decisionmaking from deliberation and alternative assumptions needed to solve

**Adaman and Madra** **2012** – \*economic professor at Bogazici University in Istanbul, \*\*PhD from UMass-Amherst, economics professor (Fikret and Yahya, Bogazici University, “Understanding Neoliberalism as Economization: The Case of the Ecology”, http://www.econ.boun.edu.tr/content/wp/EC2012\_04.pdf, WEA)

The reduction of ecological valuation through a market mechanism (or various techniques) to a ¶ mere aggregation of individual subjective valuations—which is the main premise of neoliberal ¶ ideology—may be inappropriate for complex and uncertain phenomena ridden with ¶ incommensurabilities and inter- and intra-generational distributional conflicts, such as global ¶ warming, where individual valuations will have clear implications for all living beings. Indeed, ¶ in making decisions with substantial consequences pertaining to our current life as well as our ¶ future (such as the overall growth rate, distributional trajectories, technological path, ¶ consumption habits, risk attitude [say, vis-à-vis nuclear energy]), the market response or the ¶ aggregation of individuals’ valuation through a set of available techniques (e.g., the contingent ¶ valuation) may substantially differ from what could be derived through **collective deliberation** ¶ and negotiation of various stakeholders including the scientific community (see, e.g., ¶ Özkaynak, Adaman and Devine, 2012). This criticism applies not only to neoliberal positions ¶ that favor the current unequal distribution of power but also to the Post-Walrasian one which ¶ although concerned with distributional issues keeps relying on individualist ontologies of ¶ calculative and calculable agency. Indeed, there is a growing theoretical and applied literature ¶ arguing that in incommensurable cases, where all relevant aspects cannot be captured in a single ¶ dimension (such as those derived from monetary cost-benefit analyses), a multi-criteria ¶ methodology would seem better placed, as it will be possible to involve not only economic but ¶ also political, moral, scientific and cultural inputs from a variety of stakeholders (see, e.g., ¶ Martinez-Alier, Munda and O’Neil, 1999; Munda, 2008). The key promise of the multicriteria decision-making tool and other similar participatory and deliberatory dispositifs is that ¶ **rather than finding a “solution”** to a conflictual decision, they shed light on the multifaceted¶ dimensions of the problem at hand and thus facilitate the consensus-building process from ¶ below (see, e.g., Adaman, 2012). In this regard, they constitute a formidable path to be ¶ explored as an alternative to the surreptitiously normative neoliberal governmental dispositifs, ¶ designed by experts from above, under the assumption that all actors are calculative and ¶ calculable.

The current indiscriminate application of neoliberal policies over the entire scope of the social ¶ field has brought about such political, economic, cultural and ecological devastation that any ¶ type of reform suggestion along the line to halt this process is met with much welcoming by ¶ many of us—even if some of them are still **acting as if economic incentives are the only viable** ¶ **policy tool** in town. Consider the case of carbon markets, for example, where the cap is ¶ decided either through a scientific body or through aggregating individuals’ preferences. The ¶ fact of the matter is that, far from addressing the inefficiencies that emanate from opportunistic ¶ and manipulative activities, these mechanisms are vulnerable precisely because they end up¶ soliciting manipulative, predatory, and rent-seeking behavior (**because they are** **designed** to ¶ function **under such behavioral assumptions** in the first place). In other words, these solutions ¶ subject a commons such as global climate into the economic logic of markets and ¶ “performatively” turn it into an object of strategic-calculative logic (MacKenzie, Muniesa and ¶ Siu, 2007; Çalışkan and Callon, 2009; MacKenzie, 2009; Çalışkan and Callon, 2010; see also ¶ Spash, 2011). Consider, furthermore, the case of price-per-bag policies. Laboratory ¶ experiments and anthropological evidence both suggest that charging a price for some activity ¶ that should in fact be treated as a duty or a commitment may well create perverse results (see, ¶ e.g., Campbell, 1998; Bowles and Hwang, 2008). Monetizing the pollution-generating activity ¶ instead of limiting the use of plastic bags (along with an awareness program) may well result in ¶ an increase of the unwanted activity. Similarly, while nationalization is the trend in areas of ¶ natural resource extraction and energy production, many continue to argue for privatization ¶ and private-public partnerships instead. Nevertheless, the problem with the private versus ¶ public dichotomy, given our reading of the contemporary state as an agent of economization, is ¶ precisely that both forms, to the extent that they are informed by the different variants of ¶ neoliberal reason, serve to isolate these critical areas from the deliberations and political ¶ demands of various stakeholders and the general public, **limiting the only channels for** ¶ **communication** available to them to the price (or price-like) mechanisms. However, perhaps ¶ most importantly, neither can be immune towards all sorts of rent-seeking activities that occur ¶ behind the close doors of the technocracy that operates in the area where state shades into ¶ market in the various forms of dispositifs.

Needless to say, economic activities that generate pollution and consume energy are not recent ¶ phenomena that are exclusive to what is now increasingly being called the neoliberal era. If ¶ anything, postwar Keynesian developmentalism was possible precisely because of the ¶ availability of cheap oil, and is responsible for an enormous amount of environmental pollution ¶ and ecological degradation (Mitchell, 2011). In this sense, it would be wrong to present ¶ neoliberal as being the only responsible mode of governmentality for the dual crises of climate ¶ change and natural resource depletion. Yet, this does not change the fact that the neoliberal ¶ reason (in its free-market and mechanism-design variations) is pushing its agenda in an era ¶ where both of these crises are reaching catastrophic levels, and it is highly questionable whether ¶ neoliberal methods of handling the environmental pollution and the extraction crisis will be¶ capable of addressing long-term concerns.

#### If they really wanted to understand the historical dynamics of energy, they wouldn’t have pinned it on Reagan—that focus divorces policy from politics instead of understanding energy as a social project

**Adaman and Madra** **2012** – \*economic professor at Bogazici University in Istanbul, \*\*PhD from UMass-Amherst, economics professor (Fikret and Yahya, Bogazici University, “Understanding Neoliberalism as Economization: The Case of the Ecology”, http://www.econ.boun.edu.tr/content/wp/EC2012\_04.pdf, WEA)

States as agents of economization

Neoliberal reason is therefore not simply about market expansion and the withdrawal of the ¶ welfare state, but more broadly about reconfiguring the state and its functions so that the state ¶ governs its subjects through a filter of economic incentives rather than direct coercion. In ¶ other words, supposed subjects of the neoliberal state are not citizen-subjects with political and ¶ social rights, but rather economic subjects who are supposed to comprehend (hence, ¶ calculative) and respond predictably (hence, calculable) to economic incentives (and ¶ disincentives). There are mainly two ways in which states under the sway of neoliberal reason ¶ aim to manipulate the conduct of their subjects. The first is through markets, or market-like ¶ incentive-compatible institutional mechanisms that economic experts design based on the ¶ behaviorist assumption that economic agents respond predictably to economic (but not ¶ necessarily pecuniary) incentives, to achieve certain discrete objectives. The second involves a ¶ revision of the way the bureaucracy functions. Here, the neoliberal reason functions as an ¶ internal critique of the way bureaucratic dispositifs organize themselves: The typical modus¶ operandi of this critique is to submit the bureaucracy to efficiency audits and subsequently ¶ advocate the subcontracting of various functions of the state to the private sector either by fullblown privatization or by public-private partnerships.

While in the first case citizen-subjects are treated solely as economic beings, in the second case ¶ the state is conceived as an enterprise, i.e., a production unit, an economic agency whose ¶ functions are persistently submitted to various forms of economic auditing, thereby suppressing ¶ all other (social, political, ecological) priorities through a permanent economic criticism. ¶ Subcontracting, public-private partnerships, and privatization are all different mechanisms ¶ through which contemporary governments embrace the discourses and practices of ¶ contemporary multinational corporations. In either case, however, economic **policy decisions** ¶ (whether they involve macroeconomic or microeconomic matters) **are isolated** from public ¶ debate and deliberation, and **treated as matters of** technocratic design and **implementation**, ¶ while regulation, to the extent it is warranted, is mostly conducted by experts outside political ¶ life—the so-called independent regulatory agencies. **In the process, democratic participation** in ¶ decision-making **is either limited to an already** highly-**commodified**, spectacularized, mediatized ¶ electoral **politics**, or to the calculus of opinion polls where consumer discontent can be ¶ managed through public relations experts. As a result, a **highly reductionist notion** of economic ¶ efficiency ends up being the only criteria with which to measure the success or failure of such ¶ decisions. Meanwhile, individuals with financial means are free to provide support to those in ¶ need through charity organizations or corporations via their social responsibility channels.

Here, two related caveats should be noted to sharpen the central thrust of the argument¶ proposed in this chapter. First, the separation of the economic sphere from the social-ecological whole is not an ontological given, but rather a political project. **By** treating social¶ subjectivity solely in economic terms and deliberately **trying to insulate policy-making from** ¶ popular **politics** and democratic participation, the neoliberal project of economization makes a ¶ political choice. Since there are no economic decisions without a multitude of complex and ¶ over-determined social consequences, the attempt to block (through economization) all ¶ political modes of dissent, objection and negotiation available (e.g., “voice”) to those who are ¶ affected from the said economic decisions is itself a political choice. In short, economization is ¶ itself a political project.

Yet, this drive towards technocratization and economization—which constitutes the second ¶ caveat—does not mean that the dirty and messy distortions of politics are gradually being ¶ removed from policy-making. On the contrary, to the extent that policy making is being ¶ insulated from popular and democratic control, it becomes **exposed to the “distortions” of** a ¶ politics of **rent-seeking and speculation**—ironically, as predicted by the representatives of the ¶ Virginia School. Most public-private partnerships are hammered behind closed doors of a ¶ bureaucracy where states and multinational corporations divide the economic rent among ¶ themselves. The growing concentration of capital at the global scale gives various industries ¶ (armament, chemical, health care, petroleum, etc.—see, e.g., Klein, 2008) enormous amount ¶ of leverage over the governments (especially the developing ones). It is extremely important, ¶ however, to note that this tendency toward rent-seeking is not a perversion of the neoliberal ¶ reason. For much of neoliberal theory (in particular, for the Austrian and the Chicago schools), ¶ private monopolies and other forms of concentration of capital are preferred to government ¶ control and ownership. And furthermore, for some (such as the Virginia and the Chicago ¶ schools), rent-seeking is a natural implication of the “opportunism” of human beings, even ¶ though neoliberal thinkers disagree whether rent-seeking is essentially economically efficient (as ¶ in “capture” theories of the Chicago school imply) or inefficient (as in rent-seeking theories of ¶ the Virginia school imply) (Madra and Adaman, 2010).

This reconfiguration of the way modern states in advanced capitalist social formations govern ¶ the social manifests itself in all domains of public and social policy-making. From education to ¶ health, and employment to insurance, there is an observable **shift from** rights-based policymaking forged through public **deliberation and participation, to policy-making based solely on** ¶ economic viability where policy issues are treated as matters of **technocratic calculation**. In this ¶ regard, as noted above, the **treatment of subjectivity** solely in behaviorist terms of economic ¶ incentives **functions as the key conceptual choice** that makes the technocratization of public ¶ policy possible. Neoliberal thinking and practices certainly have a significant impact on the ¶ ecology. The next section will focus on the different means through which various forms of ¶ neoliberal governmentality propose and actualize the economization of the ecology.

## 2nc

### perm

#### Turn—crowd out—net worse than counterplan alone

**Adler**, Professor of Law and Co-Director, Center for Business Law and Regulation, Case Western Reserve University School of Law, **07** (Jonathan H., “WHEN IS TWO A CROWD? THE IMPACT OF FEDERAL ACTION ON STATE ENVIRONMENTAL REGULATION”, 31 Harv. Envtl. L. Rev. 67, Lexis)

Just as federal action may indirectly encourage greater state regulatory activity, federal action may discourage state regulatory action. This can occur in at least two ways. First, the adoption of a federal regulatory standard may "signal" that more stringent state regulations are unnecessary. In effect, the federal standard may be seen as evidence that a given level of regulatory protection is sufficient to safeguard relevant public interests, and more stringent measures are unnecessary. As a result, the adoption of a federal regulation may induce state policy-makers to adopt comparable state protections. In addition, the adoption of a federal regulation may crowd out state regulatory measures by reducing the net benefits of additional state measures. As a result, the existence of federal regulation may discourage the adoption of additional state-level regulatory protections in the future. The potential for federal regulatory measures to reduce the level of state regulatory activity is significant because it challenges the prevailing assumption that the adoption of a federal regulatory standard raises, or at least maintains, the aggregate level of protection nationwide. n116 Many environmental analysts, for example, suggest that the federal government should adopt a regulatory floor, but allow states to implement federal standards and adopt more stringent measures of their own. n117 The general belief is that this will maximize the extent of environmental protection. Yet if the adoption of federal regulatory standards can induce states to adopt less protective environmental measures than they would otherwise have adopted, the net benefits of a federal floor will be less than traditionally assumed, and in some states it will actually result in a net reduction in the aggregate level of environmental protection. Indeed, it is possible that the net result of a federal regulatory floor, over time, could be the maintenance of lower levels of environmental protection than would otherwise have been adopted. Even if such effects are unlikely, federal policy-makers should consider these possibilities when assessing the likely costs and benefits of federal action.

### explanation

#### Makes the DA unique (but they still link because because they take customers OFF the grid so the only remaining customers get fucked)

**Elliott et al 2008** – PhD from Duke, former adjunct associate professor of Civil and Environmental Engineering at Duke University and Senior Engineering Project Manager at the N.C. Alternative Energy Corp.

where he was founding director of the Industrial Energy Laboratory, coordinates ACEEE's overall research efforts and leads the Agricultural Program (February, Maggie Eldridge, Neal Elliott, William Prindle, Katie Ackerly, John “Skip” Laitner, Vanessa McKinney, Steve Nadel & Max Neubauer;1 Alison Silverstein;2 & Bruce Hedman, Anne Hampson & Ken Darrow3, “ENERGY EFFICIENCY: THE FIRST FUEL FOR A CLEAN ENERGY FUTURE RESOURCES FOR MEETING MARYLAND’S ELECTRICITY NEEDS”, EPA Report Number E082, http://www.epa.gov/statelocalclimate/documents/pdf/aceee-e082.pdf)

Maryland faces daunting challenges for its energy future. The growing demand for electricity and the stall in power system capacity calls into question our ability to keep the lights on past 2011–2012. Consumers are reeling from the recent surge in electricity prices that strain household budgets, imperil jobs, and create uncertainty for the state’s economy. Building new generation or transmission resources cannot meet these challenges in the near term—they cannot be brought online in time to forestall blackouts, and they will further increase electricity prices. Energy efficiency and demand response are the only resources that can be mobilized now to stave off the prospect of power curtailments in the next few years. Because they cost less than conventional powerplants, these demand-side resources are also the best way to help customers reduce their electricity bills**.**

### theory

#### It’s legitimate and politics is a net benefit

**Harvard Law Review 6** – the author isn’t named but the qualifications are: John M. Olin Fellow in Law, Economics, and Business at Harvard Law School (April, 119 Harv. L. Rev. 1855, “State Collective Action”, lexis)

Consider now the reasons why states may act collectively. In the simplest terms, collective action may be **more desirable than individual state action** because it opens a panoply of otherwise unavailable policy choices and may be more desirable than federal action because it allocates power to a better-positioned actor. n12 These advantages may exist [\*1859] because regional organizations have better information, are better positioned to act on that information, or avoid duplicative costs or coordination problems. n13 Also, collective action may be desirable politically because it may make certain programs either more or less politically salient. n14 Similarly, political actors may want to act collectively because doing so spreads or diversifies political risk. n15 Lastly, collective action may provide opportunities for economies of scale or rent-seeking behavior that states cannot achieve independently. n16 Some brief examples of how states may act collectively illustrate the importance of the topic. n17 As in the stylized examples, states may act collectively to reduce pollution. Groups of states also could develop plans to use common reserves of natural resources, including oil fields or aquifers that cross state lines, or plans to allocate the use of rivers, lakes, forests, or other natural resources. They may also regulate wildlife that lives in multiple states, either to protect that wildlife or to use it for commercial purposes. States may take similar action to regulate or allocate energy or to develop interstate transit infrastructure, such as highways, rail lines, or regional airports. States may regulate the production or distribution of goods or create economic development organizations organized either geographically or by some other trait, such as agricultural or oil and gas production. They also may wish to regulate certain industries or set labor standards in common ways or may wish to regulate products commonly by adopting similar production standards or tort rules. As a final example - although one can imagine many other motivations for state collective action - states may collectivize to provide better social welfare or governmental insurance programs.

### social change

#### Solves mindset shift better—better civic engagement

**Bryner, 2** – Professor, Department of Political Science, Brigham Young University, and Research Associate, Natural Resources Law Center. University of Colorado School of Law (Gary, 26 Environs Envtl. L. & Pol'y J. 1, “Policy Devolution and Environmental Law: Exploring the Transition to Sustainable Development”, lexis)

The political conflict over environmental law and regulation has been so divisive and time consuming that it has precluded the nation from moving toward the next generation of environmental laws that would incorporate the idea of sustainable development. n70 Rather than make regulatory programs more effective, the Bush administration and Republicans in Congress continue the decades-old debate over how to reduce the costs of complying with them by changing the process by which agencies issue regulations, the criteria by which they assess risks and balance costs and benefits, and the role of private property rights. It [\*29] is difficult to move to a more ambitious agenda of sustainable development when regulatory relief is the primary environmental policy goal. Sustainable development, like any other major policy commitment, ultimately requires the support of Congress and strong, effective legislation, and the greatest failure to engage in the idea of sustainable development has been here. Leaders of both parties in Congress have virtually ignored the idea of sustainable development and the United States' commitments made at the Rio Earth Summit. For them, sustainable development is simply a problem for other countries to worry about. n71 The hostility of the Bush administration and many congressional leaders have to international commitments, along with their opposition to environmental regulation, combine to create a major barrier to pursuing the idea of sustainable development in the United States. Congress continues to debate the question of whether there should be more or less environmental regulation. Rather than asking more fundamental questions about how to balance and integrate economic growth and ecological sustainability, policy makers are mired in efforts to defend or attack the regulatory system that has been in place since the 1970s. As a result, there is no strong commitment to sustainable development, and the nation is far from having in place a strategy that integrates sustainability into environmental, social, and economic activities. n72 State and local governments play a critical role in that strategy in engaging citizens and industry in transforming economic activity.¶ There is strong support for policy devolution from political theories that emphasize participation and civic engagement. Communitarians, for example, have criticized the political expectations underlying the dominant model of regulation and the broader contemporary liberalism of which it is a part because it does not take into account the "moral and political obligations that we commonly recognize, even prize." n73 Liberal individualism fails to recognize and encourage the political obligations people have to each other, fails to see people as "mutually indebted and morally engaged" because "strong notions of community or membership" are a threat to the priority given to individual rights. Liberalism, communitarian critics argue, cannot "secure the liberty it promises, because it cannot sustain the kind of political community and civic engagement that liberty requires." n74 Liberalism provides a weak basis for environmental law because of its impoverished sense of responsibility: [\*30] Our "legal and political vocabularies deal handily with rights-bearing individuals" but seem unable to deal effectively with environmental degradation. n75 Liberalism "impedes creative long-range thinking about our most pressing public problems." n76 Its intertwining with capitalism and the constant drive for expansion, growth, and consumption, critics argue, doom it when it must deal with scarcity, limits, and pollution. n77 Liberalism has been an attractive alternative to socialism and conservatism because it promises unlimited growth, individual freedom, and unconstrained consumption. But those assumptions and values are no longer tenable in light of pollution, environmental damage, and loss of biodiversity and natural resources, and must be replaced, critics argue, with alternative forms of governance that liberate human potential and preserve the biosphere, rather than simply pursue economic growth. [n78](http://www.lexisnexis.com.proxy.lib.umich.edu/us/lnacademic/frame.do?tokenKey=rsh-20.546084.815640359&target=results_DocumentContent&reloadEntirePage=true&rand=1218116973469&returnToKey=20_T4318839434&parent=docview#n78)¶ Central to communitarianism is a fundamental revolution in the idea of public participation. Public involvement in the New Deal model of policy making is limited and constrained. Public hearing and comment periods are provided so citizens can voice their support for or opposition to policy options government agencies are considering or specific proposals they have decided on. But agencies are not required to take these comments into account in making decisions, and the decisions about what alternatives to put on the policy agenda, the selection of the alternative to be pursued, and how policies will be implemented are not negotiated with citizens but decided for them. In contrast, communitarianism engages the public directly in policy formulation, and those policies are a result of an open political process rather than one tightly managed by technocrats or political elites. Real public participation empowers people to make tradeoffs, set priorities, and determine the public interest as they govern themselves.¶ Other proponents of strong democracy emphasize the interaction of environmental and other public problems and the role of citizen participation in remedying them. Insensitivity to ecological constraints and efforts to dominate and exploit nature are intertwined with efforts by humans to dominate and exploit each other. Social domination and hierarchies are barriers to ecological health and preservation. The state itself is a barrier to an ecological society because of its hierarchical, anti-participatory nature, and must be abolished and replaced with human-scaled communities which free them to find technological and behavioral solutions to environmental problems. When individuals are liberated from [\*31] the artificial structures that constrain them, they will be free to learn how to live in harmony with nature. n79 The solution to environmental problems often requires changes in behavior by all members of a community. People are more likely to comply with decisions and agreements they have played a role in formulating. Those who have information and the power to affect decisions will participate in policy making and their participation gives them ownership in the commitments made. People affected by decisions that balance expenditures on pollution control or limits on economic development with other values become responsible themselves for weighing those competing concerns and making the trade-offs, rather than having them imposed by others. n80¶ Solving environmental problems and building democratic capacity are intertwined. Promoting democratic participation and decision making are just as important as resolving the environmental challenges. Because the environmental and public health stakes are often so high, there is a great incentive to participate and to build democratic decision making capacity. The agenda is much broader than reducing pollution, but reaches into other areas of public concern in empowering people to solve problems and pursue values such as of justice, fairness, and equity, while also enhancing their freedom and ability to govern themselves. n81 Proponents of "strong democracy" argue that citizens and political officials must engage in a public dialogue. Rather than discussions with the public over a few, highly contentious issues such as the citing of hazardous waste facilities, the public plays a central role in the broad range of public issues and determine for themselves where the public interest lies. The role of the political community is to transform self-interested individuals into citizens who also seek public goods. Democratic discourse is essential, where conflicts are resolved through public discussions and decision-making. Forums must be created to provide information and to provide access to scientific and technical information so that citizens can challenge claims made by different participants, to ensure that citizens determine policy outcomes and are not limited to just expressing their views, and to provide continual, enduring opportunities to revise decisions as new information is developed and circumstances change. Public participation not only produces remedies to public problems but also builds democratic capacity and self-governance. n82¶ [\*32] V. CONCLUSION¶ The idea of sustainable development makes a persuasive case, rooted in empirical observations as well as theoretical arguments, that environmental regulatory process needs to engage more effectively the public and industry in pursuing environmental goals. Giving states increased authority and responsibility to fashion regulatory programs and encourage innovation and experimentation is an essential element of the rethinking of regulation that is taking place that is central in the transition to policies that are firmly embedded in the idea of sustainability.

#### We’ll straight turn any durable mindset shift arguments—this is offense

**Byrne, 07** –Center for Energy and Environmental Policy (John, “American policy conflict in the greenhouse: Divergent trends in federal, regional, state, and local green energy and climate change policy” Energy Policy Volume 35, Issue 9, September 2007, science direct)

‘‘Institutional gridlock’’ is a term often used to characterize policymaking at the US federal level, where a complex system of rules and procedures governs legislative action. Draft bills are assigned to specialized committees for review, and alternately ‘‘recommended’’ for passage, revision, or ‘‘tabling,’’ with the latter action setting aside perhaps indeﬁnitely action on a bill. For bills released from committees in either chamber of the US Congress, majority votes are required for passage, after which differing versions of the legislation must be reconciled before the legislation is submitted to the US president for signature or veto. If the president vetoes the legislation, a two-thirds majority vote in both bodies of the US Congress can still secure its passage into law. However, instances of overridden vetoes remain rare, especially because in the US Senate, one senator acting alone can prevent legislation from being voted upon by invoking a ﬁlibuster, a tactic that may only be curtailed by the votes of 60 members (Johnson, 2003; Rabe, 2002). In brief, it is usually easier to prevent legislative action than it is to pass new policies. ¶ While this factor plays a role in slowing national action on energy policy, it cannot readily explain the gulf between state, local and federal initiatives on climate and green energy policies. Most American states have similar procedures for legislative action. More compelling is the differential power of the energy lobbies at the federal level (Rajan, 2006), which have consistently demonstrated the ability to pressure federal politics (compared to those of the50 states). This stems from several factors, but high among these are the national and, indeed, international scale of their operations and their critical role in funding federal political campaigns (Sussman et al., 2002). The conse-quences of special interest involvement are exacerbated by the way in which groups claim representation in the political process. More speciﬁcally, the US federal system is dominated by a ‘‘winner take all,’’ majoritarian form of democratic rulemaking (Hill, 2002), rather than the system of proportional representation and coalition governments found in many European nations. In the latter, green parties and other groups supportive of climate change mitigation have gained power in recent years (Tjernshau- gen, 2005). By contrast, popular environmental initiatives in the US supported by substantial numbers of American citizens may ultimately fail to be represented in national elections and national politics. ¶ Although a similar barrier can exist for state and local initiatives, there are reasons why civil society may none- theless be able to exercise a greater voice in state and local policymaking. For one thing, 23 states allow citizens to petition for direct vote on a policy initiative (Initiative and Referendum Institute, 2007). This method of ‘‘direct democracy’’ has been used to win environmental and energy policy adoption in some states (e.g., the State of Washington passed an RPS initiative by ballot in 2006— see Initiative and Referendum Institute, 2007). The less costly conditions of citizen participation in state and local, compared to national, politics may also create more fertile ground for civil society inﬂuence. In this regard, civil society mobilization and activism can have local feasibility when it is less effective or more difﬁcult at the national level. ¶ By contrast, national political culture in the US appears to be especially vulnerable to interest-group lobbies, perhaps nor more so than in the areas of energy and environment. Leggett’s (2001) analysis of the ‘‘carbon club’’ in the US underscores this point. Analyses by others (e.g., Public Citizen, 2005; NRDC, 2001) of the inordinate inﬂuence of the automobile and fossil fuel industries in US energy and environmental policy likewise points to why it has been so difﬁcult to adopt an aggressive national policy to reduce GHG emissions. As noted earlier, the National Energy Policy Development Group received information and advice ‘‘principally’’ from those representing the petroleum, nuclear, natural gas, coal, automobile, and electricity industries (US General Accounting Ofﬁce (GAO), 2003). In addition, former top executives, lobby- ists, and representatives from the oil, natural gas, electric, auto, and mining industries have assumed leadership positions in the current national Administration, including posts in the White House, the Department of the Interior, the Department of Commerce, the Department of Energy, and the Environmental Protection Agency (Bogardus, 2004; Drew and Oppel Jr., 2004; NRDC, 2001). ¶ While interest group inﬂuence is not limited to federal policymaking, state and local-level activism has often been able to overcome it in order to pass climate change action plans and promotional policies for sustainable energy development. This may be explained in part by states’ and cities’ historical jurisdiction over activities relevant to issues of energy development and climate change mitiga- tion. These include regulation of electricity and natural gas companies (and in some cases, public ownership of these utilities), land use planning, job creation, public health, and disaster management. Because of public expectations for states and cities to address these concerns, political efforts to legislate green energy use and climate change mitigation have often dovetailed with agendas to increase jobs, improve air quality, address congestion and govern energy investment in the direct interests of communities and local businesses. With a few exceptions, most states and localities in the US are not economically dependent on the auto and fossil fuel industries and, therefore, are less likely to feel compelled to address the political agendas of these industries. Such dynamics are perhaps most evident in the recent wave of energy-related initiatives announced by governors in their 2006 State of the State addresses. These included goals for air quality improvement in California, a push for bio-fuel development in Georgia, and tax credits and exemptions beneﬁting renewable energy companies in New Mexico and New York (State of California, 2006; Georgia Ofﬁce of the Governor, 2006; New Mexico Ofﬁce of the Governor, 2006; New York State, 2006; Stateli- ne.org, 2006).

### ispec

#### Generic incentives don’t exist—it’s impossible to evaluate any of the aff without prior specification

**Ilex Associates, 96** – Consultants to the British Department of Trade and Industry (“A REVIEW OF OVERSEAS FINANCING MECHANISMS AND INCENTIVES FOR COMMERCIAL RENEWABLE ENERGY PROJECTS”, <http://www.berr.gov.uk/files/file15101.pdf>)

Ilex Associates has conducted a comprehensive world study of incentive and financing mechanisms for supporting renewable technologies. A number of countries have been identified as having particularly interesting current or past policies for the development and commercialisation of renewable energy technologies and which can, therefore, be used to inform policy decisions in the UK. These countries are: Austria, Denmark, Greece, India, The Netherlands, Spain and two States of America together with its federal programme. Detailed case studies for each of these countries are presented in Volume 2, and the summaries for each of these countries are included in Appendix I of this volume. Shorter reports for those countries which were studied in less detail as part of the initial world study are presented in Volume 3 of this study, and brief 'thumb-nail' sketches of the countries are included in Appendix II of this report. The findings of the different country studies have been reviewed to identify the main forms of "incentive mechanisms" and "financing mechanisms" that are used to support renewable technologies world-wide, and the successes and failures of the different approaches. The overall objectives of different governments vary and, combined with the context of the industry structure, these variations are reflected in the range of mechanisms used. Schemes can probably be placed along a spectrum whose two extremes are government­ driven consensus mechanisms at one end, and market mechanisms at the other. One of the key results to come out of the work is the fact that **whilst some incentive mechanisms may be appropriate** to some technologies, they may not be appropriate to others. This is either because of the different characteristics of the technologies (i.e. whether they are grid-connected electricity generating technologies, or heat producing, or stand-alone/domestic scale electricity generating technologies), or because of the different stages of maturity of the technology. **No single incentive mechanism is appropriate to all types** of technology.

#### Not specifying means evaluating desirability is IMPOSSIBLE and a moot point

**Azurin 8** [Rene B., Business World, "Strategic Perspective: Renewable Energy Barriers," February 7th, Lexis]

Chatting at the just-concluded Energy Summit with the very charming Dr. Nandita Mongia, regional coordinator for the Energy Program for Poverty Reduction in Asia and the Pacific of the UNDP, I learned that Indonesia mobilizes funding for renewable energy for the poor through taxes on fossil fuels. That, to me, is an example of a logical public finance policy: Penalize, through taxes, what you wish to discourage and use the funds raised to help develop what you wish to encourage. It is also a manifestation of a strategic perspective, the kind of system-wide thinking and long-run view we need to see exhibited by more of our own government's finance and economic managers. One of the things our highest officials sometimes seem to be unconscious of is a principle I drum repeatedly into the minds of my strategy students: Outcomes are the product of the prevailing structure of incentives; if you want a particular outcome, **you must first design the incentive system** to lead to it. Exhortations and directives without an accompanying incentive structure consistent with the desired outcomes are no more than expressions of wishful thinking. The exhortations are simply ignored and the directives simply make people **waste time** and, uh, energy inventing ways to avoid complying while vigorously pretending to be absolutely, completely in favor of the announced action. Filipinos are particularly creative in this regard. We say - or, more precisely, our public officials say - that the country's energy strategy should be to develop more renewable and alternative energy sources - solar, wind, geothermal, ocean, hydro, biomass - that, because they are indigenous and climate friendly, will reduce our country's dependence on imported fossil fuels that pollute our environment. Currently (according to Department of Energy figures), power plants using renewable energy have an installed capacity of 5,260 megawatts, or 33.5% of total power generating capacity in the country. This is broken down into hydro (3,257 MW), geothermal (1,978 MW), and wind (25 MW). The DOE, according to the hardworking director of DOE's Energy Utilization Bureau, Mr. Mario Marasigan, launched in August 2003 an aggressive Renewable Energy Policy Framework that targeted the doubling of renewable energy capacity by 2013. This proposed Renewable Energy Bill, says Mr. Marasigan, will "provide incentives and remove some major market and financial barriers to renewable energy development [and] should create a better investment environment for private proponents." Unfortunately, the bill remains stuck in Congress. A workshop participant wryly commented that congressional energy is naturally directed more toward increasing congressional pork barrel allocations than achieving energy independence for the country. The **principal barrier** to renewable energy development is the fact that the energy it produces is still generally more costly than the energy produced by conventional fossil fuels. One estimate indicates that electric power from renewable or alternative fuels is 25% to 50% more expensive than electric power from oil or coal. The higher costs stem in large measure from the site-specific nature of renewable energy projects - you cannot set up a windmill farm where there is no wind or a mini-hydro plant where there is no water - which leads to high construction costs and, later, high transmission costs. Moreover, the modern imported technologies required to build efficient renewable energy plants are hardly cheap. This is why the **structure of incentives** needs to be modified as proposed in the RE Bill. The RE Bill provides for the usual tax-break incentives but complement these with the setting up of an RE Trust Fund that can finance research and development, help pay for preparatory studies, and provide loan guarantee facilities. Non-fiscal, market development-directed incentives are also provided, like the mandating of a 1% bio-diesel mix which increases to 2% by 2009, and a 5% bio-ethanol gasoline blend in 2009 which increases to 10% by 2011. Similarly, for electric utilities, it will be mandated that the electric power produced from renewable energy sources must constitute 7% to 12% of the total electric power mix and, further, that such power must be dispatched as soon as it is made available.

#### Not specifying incentives means the plan isn’t a meaningful increase, it’s impossible to evaluate the plan’s effectiveness

**Driesen, 98 -** Assistant Professor of Law, Syracuse University College of Law(David, 55 Wash & Lee L. Rev. 289, “Is Emissions Trading an Economic Incentive Program?: Replacing the Command and Control/Economic Incentive Dichotomy,” Spring, lexis)

Any meaningful theory of economic incentives must address several key questions. What precisely does a proposed program provide incentives to do? Who will create the incentives? A theory that focuses on these questions helps analyze claims that emissions trading offers free market-like dynamic advantages inducement of innovation and continuous environmental improvement central to its attractiveness. n22 It clarifies the advantages and [\*294] disadvantages of traditional regulation. It shows that much more useful things can be done with the concept of economic incentives than trade emission reduction obligations. A theory of economic incentives may help create more dynamic and effective environmental law.

#### History supports a presumption ballot – incentive policy has failed thanks to detail aversion regarding incentive structure

**Esty 1** - Professor of Environmental Law and Policy, Yale School of Forestry & Environmental Studies and Yale Law School. (Daniel, “NEXT GENERATION ENVIRONMENTAL LAW: A RESPONSE TO RICHARD STEWART,” 29 Cap. U.L. Rev. 183, lexis

Professor Stewart's discussion of economic incentive systems again provides an excellent survey of the various market mechanisms that are available to pursue environmental goals. He assesses with great care the **strengths and weaknesses** of these tools and strategies, providing important insights on the contexts in which particular mechanisms are likely to be most effective. n43 Stewart's analysis of the reasons why economic incentive-based systems have penetrated so little into the environmental regulatory regime over the last twenty- five years is also illuminating. He notes that in too many cases, incentive strategies have been ineffective. n44 For example, environmental taxes have often been set at levels too low to change behavior. n45 He recognizes that competitiveness fears have often led jurisdictions to tread lightly in the market mechanism realm for fear of disadvantaging their own industries in increasingly competitive inter-jurisdictional markets. Stewart also observes that any change in policy creates losers and winners and that the losers often have a considerable incentive to resist new regulatory approaches. n46 In the environmental realm, ironically, the potential "losers" in a new system represent a set of rather odd bedfellows: businesses whose current emissions are "permitted" and not fully paid for through cost-internalizing market mechanisms; environmental groups who are invested in campaigns that depend on the current portfolio of problems to attract public support; agency bureaucrats whose skill sets and relative power derives from the current structure of harms and regulatory approaches; and congressional committee members and staffs whose capacity to generate media attention and public interest is [\*191] a function of their established expertise within the existing system. n47

#### Incentive spec is key—not all are equally valuable

**Scheer 2004** – president of EUROSOLAR (Hermann, “The solar economy”, p. 253-4)

Renewable energy entered the market via financial support from governments for private investment in solar energy technologies. Public subsidies are still the primary form of political support for initiatives on the ground. There were and still are good reasons for this, as energy consumers, faced with the difference in cost between conventional energy supplies and the capital cost of renewable energy equipment, needed financial incentives to encourage them to invest in solar power. The palette of financial aid instruments ranges from direct subsidies covering a set percentage of the cost of equipment, through to tax breaks and low-cost loans at subsidized interest rates. As important as such programmes and incentives are in kick-starting new trends, it is important not to gloss over their faults. In many cases, they are or have been little more than gestures, and some have done more harm than good. That goes for short-term programmes with small budgets, whose funds are often very quickly exhausted. Applicants who miss the boat are put on the waiting list for the next financial year, with the consequence that individual plans get put on the back burner. Announcements of funds that then fail to appear also have dire consequences. For example, in 1996, the Italian government announced a programme to mount PV on 10,000 roofs, but after three years there had still been no movement on it, and in the meantime the still weak PV sector – without which a programme like this cannot even be implemented – had collapsed. With friends like that, renewable energy has no need of enemies.

#### Vague, utopian visions are the worst way to catalyze a transition—honing advocacy skills through specific plans crafts a more salient message

**Scheer 7 –** Member of the German Parliament, President of the European Association for Renewable Energy EUROSOLAR, Chairman of the World Council for Renewable Energy WCRE

(Hermann, *Energy Autonomy: The economic, social, and technological case for renewable energy* pg 270, dml)

Renewable energy’s champions should therefore get to work developing scenarios for concrete opportunities in the places where they live, in their regions and national governments, showing the public that (and how) it is possible to meet energy needs with technologies that have already been tested and are available for exploiting the potential of renewable energy in each specific context. The only thing that the protagonists of renewable energy might learn from the defenders of nuclear energy is how to present a large-scale, all-encompassing perspective, as the nuclear industry did from the 1950s through to the 1970s, when it was able to cast its spell over an entire generation. One need not go so far as to promise society that switching to renewable energy will bring us to a land overflowing with milk and honey. The disenchantment that followed waking up from the nuclear dream has helped exhaust society’s willingness to accept positive utopias, a disillusionment that has also been reflected in scepticism about the solar vision. In order to pick up steam socially, it should be enough to communicate the message that renewable energy is opening up a definitive opportunity for people to overcome existential energy crises.

#### Not specifying incentives means the plan isn’t a meaningful increase, it’s impossible to evaluate the plan’s effectiveness

Driesen, 98 - Assistant Professor of Law, Syracuse University College of Law (David, 55 Wash & Lee L. Rev. 289, “Is Emissions Trading an Economic Incentive Program?: Replacing the Command and Control/Economic Incentive Dichotomy,” Spring, lexis)

Any meaningful theory of economic incentives must address several key questions. What precisely does a proposed program provide incentives to do? Who will create the incentives? A theory that focuses on these questions helps analyze claims that emissions trading offers free market-like dynamic advantages inducement of innovation and continuous environmental improvement central to its attractiveness. n22 It clarifies the advantages and [\*294] disadvantages of traditional regulation. It shows that much more useful things can be done with the concept of economic incentives than trade emission reduction obligations. A theory of economic incentives may help create more dynamic and effective environmental law.

### uniqueness

#### Life is getting better—extinction not inevitable

#### Berg, 8 – research fellow at the Institute of Public Affairs (Chris, “Isn't all this talk of an apocalypse getting a bit boring?”, Sunday Age, 1/27, lexis)

But there are substantial grounds for optimism - on almost every measure, the state of the world is improving.

Pollution is no longer the threat it was seen to be in the 1970s, at least in the developed world. Changes in technology, combined with our greater demand for a clean environment, have virtually eliminated concerns about pungent waterways and dirty forests. Legislation played some role in this, but as Indur Goklany points out in his recent study, The Improving State of the World, the environment started getting better long before such laws were passed.

Goklany reveals that strong economies, not environment ministers, are the most effective enforcers of cleanliness in our air and water. Indeed, the world's 10 most polluted places are in countries where strong economic growth has historically been absent - Russia, China, India and Kyrgyzstan have not really been known for their thriving consumer capitalism.

Other indices, too, show that humanity's future is likely to be bright. Infant mortality has dramatically declined, as has malnutrition, illiteracy, and even global poverty.

And there are good grounds for hope that we can adapt to changing climates as well. History has shown just how capable we are of inventing and adapting our way out of any sticky situation - and how we can do it without crippling our economies or imposing brutal social controls.

Environmental alarmists have become more and more like those apocalyptic preachers common in the 19th century - always expecting the Rapture on this date and, when it doesn't come, quickly revising their calculations.

### link

#### Solar expansion will substantially increase electricity prices – it’s a linear relationship, their link uniqueness arguments aren’t relevant

Zycher 11 – visiting scholar at AEI (Benjamin, April 20, 2011, “The Folly of Renewable Electricity,” AEI, <http://www.aei.org/article/energy-and-the-environment/alternative-energy/the-folly-of-renewable-electricity/>)

It gets worse: Wind and solar facilities are only about a quarter to a third as reliable as conventional power plants, because wind and sunlight cannot be scheduled, and neither can renewable electricity production. Therefore, conventional backup capacity must be built along with the wind farms and solar stations in order to prevent blackouts. A study done for the California Energy Commission estimates that this needed backup capacity will be almost 5,000 megawatts; estimates from the Energy Information Administration suggest that the capital costs alone will be well over $5 billion.

These are among the reasons that the EIA estimates that wind and solar power cost 100-300 percent more than conventional power. This is consistent with a recent finding by Professor Constant Tra that each percentage-point increase in a renewable requirement raises commercial and residential rates by 4-10 percent. The proponents' claim that the 33 percent requirement will increase costs by only 7 percent is a pipe dream.¶

#### Intermittance will substantially jack up costs to utilities

**Apt et al, 8** – executive director of the Electricity Industry Center at Carnegie Mellon University’s Tepper School of Business and the Department of Engineering and Public Policy, where he is a Distinguished Service Professor (Jay, “Generating Electricity from Renewables: Crafting Policies that Achieve Society's Goals,” 5/26,

<http://wpweb2.tepper.cmu.edu/ceic/pdfs_other/Generating_Electricity_from_Renewables.pdf>

Currently the largest solar PV array in the USA is in Arizona, a 4.6 MW system operated by Tucson Electric Power. Over two years of operation, the capacity factor for that generator has averaged 19%. Even in Arizona, clouds cause rapid fluctuation in the array's power output (figure 13).

The power fluctuations in the 10 minute to several hour range of four solar arrays studied in Arizona are relatively larger in magnitude for solar PV than for wind, and the smoothing due to combining PV sites separated by 300 km is less than for wind sites.20 This implies an increased need, relative to wind, for other power sources or demand response to compensate for PV fluctuations in this frequency region. This increased need for quick response is likely to make compensating for the variability of solar PV more expensive than for wind.

Solar arrays produce more power, and for more hours, in the summer than in the winter. The capacity factor for three Arizona arrays in July 2006 was 26%; their capacity factor in January 2007 was half that value.21 In the desert southwest, that behavior is a good thing, since the air conditioning load is highest in the summer. The same would not be true in climates whose peak electric load is in the winter.

Assume that PV were the only renewable, it had a measured Arizona capacity factor of nearly 20%, and there was a 15% RPS. Assume that the average use was 100 MWh and thus PV had to contribute 15 MW on average (131,400 MkWh/yr). To get that much generation, utilities would need to build 75 MW of PV capacity in order to get average generation of 15 MW (131,400 MWh/yr), an extraordinarily high capital cost. At noon on a mild June day, the solar array would generate 75 MW of power, which would likely exceed demand, considering the must-run generation and the fast-rampling fossil power needed to fill in the gaps in solar generation. To achieve the 15% RPS, more than 75 MW of solar capacity would be needed, since some of the generation could not be used.

Solar PV system costs are the same as they were five years ago, although there is a recent very slow decrease in module prices. Unsubsidized costs in the best sites can be as low as 35 cents per kWh. However, in non-desert sites such as Florida they can be 45-50 cents per kWh. Solar thermal systems are roughly 2/3 the cost of solar PV systems.

The data from Arizona indicates that the PV is not producing much power at 5-6 PM, the time of peak demand. Thus, the utility would still need dispatchable capacity sufficient to supply the highest demand (plus a reserve). There would still need to be gas turbines to smooth the variability of PV output. However, since the air conditioning demand is highest when the sun is shining on a hot day, less of the PV generated electricity would be wasted.

## 1nr

### 1nr a2 history good

#### Counterfactuals are futile and misleading exercises --- impossible to accurately predict how the world would have turned out

David Frum 00, “History As It Wasn't,” The Weekly Standard, Vol. 6, No. 11, Nov 27, 2000, http://weeklystandard.com/Content/Protected/Articles/000/000/011/664qtnky.asp?nopager=1

But though it's natural to speculate about the paths we personally did not choose, historians have warned for decades that it is futile and misleading to engage in such speculation about humanity as a whole. "Cleopatra's nose: Had it been shorter, the whole face of the world would have been changed," Blaise Pascal mused -- and ever since, the idea that something as contingent as one woman's beauty might be responsible for the rise and fall of kingdoms has been damned by the historical profession as the "fallacy of Cleopatra's nose."

Historians have objected to Pascal's proposition for two opposite reasons: some because they believe that the shortening of Cleopatra's nose would have changed too little to make a difference; others because they believe that it would have changed too much for the human mind to reckon with.

Those who disparage the effect of the nose-change think that historical developments are vast, virtually irresistible tides, channeled within bounds that no individual can alter. Suppose Cleopatra had been less seductive, and that as a result Mark Antony rather than Octavian had emerged the dictator of Rome. How could that make a difference? To succeed, Antony would have had to govern more or less as Octavian did; had he failed to do so, his regime would have swiftly collapsed, as the three military dictatorships before Octavian's collapsed. In other words, had Cleopatra's nose been shorter, the names on the busts in the Capitoline museum might well have been altered. But the face of the world? Hardly a jot. According to this deterministic objection, historical counterfactuals are useless because they fail to take account of how little difference any single human being can make.

The other theory, by contrast, complains that Cleopatra's nose counterfactuals are useless because they fail to reckon with how much difference a single human being can make. Ray Bradbury has a famous science-fiction story in which a character travels back in time to the age of the dinosaurs, accidentally steps on a single butterfly, and returns to the present -- only to discover the world entirely changed. It's ridiculous, goes this theory, to ask how Mark Antony's empire would have differed from Octavian's. Alter one fact of history and all of history is put up for grabs, in such a radical way that we here in North America could easily be pondering in Chinese what-if scenarios about our Han dynasty ancestors.

The Italian historian and philosopher Benedetto Croce delivered an especially eloquent expression of this point of view, which is disapprovingly quoted in Niall Ferguson's introduction to Virtual History: Alternatives and Counterfactuals, a recent collection of essays on the topic. The Cleopatra's nose problem, Croce complained, "arbitrarily divides the course of history into necessary facts and accidental facts." A supposedly accidental fact is then

mentally eliminated in order to espy how the first would have developed along its own lines if it had not been disturbed by the second. This is a game which all of us in moments of distraction or idleness indulge in, when we muse on the way our life might have turned out if we had not met a certain person, . . . cheerfully treating ourselves, in these meditations, as though we were the necessary and stable element, it simply not occurring to us . . . to provide for the transformation of this self of ours which is, at the moment of thinking, what it is, with all its experiences and regrets and fancies, just because we did meet that person.

And yet despite all these wise admonitions, people continue to engage in just the sort of speculation Croce and others condemn. They use it as a teaching device, to jolt people out of the complacent assumption that events had to happen as they did: The British historian Conrad Russell has a marvelous essay about how, if the wind had not abruptly shifted in 1688, the Glorious Revolution would have failed and a Catholic king would have been preserved on the English throne. At still other times it serves a moral purpose, prodding us to appreciate the importance of individuals in history: What if the car that struck Winston Churchill when he looked the wrong way before crossing Fifth Avenue in 1931 had killed him? Alexis de Tocqueville warned that because men in democratic societies feel themselves to be small and weak, they are dangerously tempted by explanations of historical events that stress inevitability. Alternative history at its best can encourage us to appreciate the daunting contingency of history -- and the supreme importance for good or ill of individual moral choice.

This point is effectively made by the best of the essays anthologized in Ferguson's book, Mark Almond's "1989 Without Gorbachev." With bitter irony, Almond argues that we do indeed owe the end of the Cold War to Mikhail Gorbachev. "After generations of dullard apparatchiks had safely guided the Soviet Union to super-power status, it was the bright-eyed Gorbachev who grabbed the steering wheel and headed straight for the rocks." Repression could still have worked in the mid-1980s, and would have found no lack of apologists in the West.

Gorbachev's perestroika, by contrast, wrecked the stagnating Soviet economy while his glasnost discredited his regime. "Gorbachev's belief that a relaxation in international tensions was in the Soviet Union's interest was profoundly misplaced. Only the 'two camps' division of the world provided the kind of global scenario in which such a strange animal as the Soviet economy could function." Had Gorbachev only held on a little longer, he would have discovered that ideological help was on its way.

The long march through the institutions of post-1960s pacifism and fellow traveling combined with nuclear panic was just about to reach its goal. It was only the surprising and total collapse of Communism . . . which brought much of the Western intelligentsia to admit that the Right had been correct. . . . Had the Wall stayed up, much of the Western elite would have remained oblivious to Communism's failings, moral as much as material, for at least another generation.

But alternative history is seldom at its best. More often it turns into heavy-handed academic drollery -- like the 1932 collection If It Had Happened Otherwise, in which (among other heavy-handed drolleries) Benjamin Disraeli becomes grand vizier to a rejuvenated Muslim kingdom in Spain. Or else into ponderously detailed constructions of imaginary societies -- science-fiction without the robots and deathrays -- as in Robert Sobel's For Want of a Nail, a prolonged counter-history of a world in which American independence was snuffed out at the battle of Saratoga in 1777.

And of course, sometimes it back-fires altogether. Reading through many counterfactual histories, one tends to find reinforced one's Tocquevillian feelings of inevitability. In Robert Cowley's What If? The World's Foremost Military Historians Imagine What Might Have Been, another recent anthology of hypothetical history, Alistair Horne considers how history might have been altered had Napoleon halted his career of conquest after the Peace of Tilsit in 1807. But to suppose that Napoleon could have somehow quit the roulette table while he still held all his winnings is to endow him with a personality entirely different from the one he actually had -- and such an unnapoleonic Napoleon would never have adventured the first profitable spin. And even if Napoleon could have gotten a grip on his egotism and refrained from starting further wars himself, his empire was so ruthless, exploitative, and menacing that sooner or later the Russians, Austrians, and British would have resumed the war against him.

As for the old chestnut about Napoleon winning at Waterloo, not even Horne can bring himself to believe it. "There were vast fresh forces of Russians, Austrians, and Germans already moving toward France. A second battle, or perhaps several battles, would probably have followed." And behind these battles would have been the strangulating power of the Royal Navy and the superior financial resources of a Britain already embarked upon its industrial revolution.

It could be said that alternative history performs as great a service when it shows that a result was inescapable as when it shows that things might have turned out otherwise. One of the most sensible essays gathered in these anthologies is Theodore F. Cook's in What If?, which convincingly argues that the likeliest result of a Japanese victory at the battle of Midway would have been not an Axis victory, but a prolongation of the war and the devastation of the Japanese Home Islands by atomic bombs. Another is Alvin Jackson's in Virtual History, which concludes that Anglo-Irish relations would have followed the same tragic course in the twentieth century whether or not the British Liberals had been able to push through the plan for Home Rule for Ireland. "Ireland under Home Rule might well have proved to be not so much Britain's settled, democratic partner as her Yugoslavia."

But what is no service to anyone is the kind of wish-fantasy that predominates in both books. Eminent historian that he is, Stephen Sears is kidding himself to imagine in What If? that a Union victory at First Bull Run would have knocked the Confederacy out of the war before it began. In Virtual History, Niall Ferguson repeats the assertion (made in greater scope in his 1999 book The Pity of War) that British neutrality in 1914 would have brought us something very like the European Union eight decades ahead of schedule while preserving England as a great power -- a hypothesis that more closely resembles the daydreams of Civil War reenactors than the realities of the early twentieth century.

As they so often do, in fact, these fantasies reveal more about the fantasizer than they do about the thing fantasized about. Ross Hassig contends in What If? that an independent Native American state could have survived in Mexico had Hernando Cortez been captured and sacrificed by the Aztecs (as he very nearly was) in the climactic battle for Tenochtitlan in 1521 -- a contention that tells us more about the historical profession's born-again enthusiasm for Indian culture than about the real-life prospects for a stone-tool kingdom whose people lacked immunity to European diseases. Alternative history is the last redoubt of the historical traditionalist -- the sort of historian who still cares about high politics, wars, and battles -- but dreamy multiculturalists are forcing their way into even this cloistered subgenre. Makes you shudder to think what the rest of the profession must be like.

### A2 Limits Bad

**Constraints actually** fuel **innovation and creativity**

David Intrator, President of The Creative Organization, October 21, 2010, “Thinking Inside the Box,” http://www.trainingmag.com/article/thinking-inside-box

One of the most pernicious myths about creativity, one that seriously inhibits creative thinking and innovation, is the belief that one needs to “think outside the box.” As someone who has worked for decades as a professional creative, nothing could be further from the truth. This a is view shared by the vast majority of creatives, expressed famously by the modernist designer Charles Eames when he wrote, “Design depends largely upon constraints.” The myth of thinking outside the box stems from a fundamental misconception of what creativity is, and what it’s not. In the popular imagination, creativity is something weird and wacky. The creative process is magical, or divinely inspired. But, in fact, creativity is not about divine inspiration or magic. It’s about problem-solving, and by definition a problem is a constraint, a limit, a box. One of the best illustrations of this is the work of photographers. They create by excluding the great mass what’s before them, choosing a small frame in which to work. Within that tiny frame, literally a box, they uncover relationships and establish priorities. What makes creative problem-solving uniquely challenging is that you, as the creator, are the one defining the problem. You’re the one choosing the frame. And you alone determine what’s an effective solution. This can be quite demanding, both intellectually and emotionally. Intellectually, you are required to establish limits, set priorities, and cull patterns and relationships from a great deal of material, much of it fragmentary. More often than not, this is the material you generated during brainstorming sessions. At the end of these sessions, you’re usually left with a big mess of ideas, half-ideas, vague notions, and the like. Now, chances are you’ve had a great time making your mess. You might have gone off-site, enjoyed a “brainstorming camp,” played a number of warm-up games. You feel artistic and empowered. But to be truly creative, you have to clean up your mess, organizing those fragments into something real, something useful, something that actually works. That’s the hard part. It takes a lot of energy, time, and willpower to make sense of the mess you’ve just generated. It also can be emotionally difficult. You’ll need to throw out many ideas you originally thought were great, ideas you’ve become attached to, because they simply don’t fit into the rules you’re creating as you build your box.

# r5 neg v. georgetown em

## 1nc

### T

#### Restrictions must legally mandate less production, not just regulate it

Anell 89

Chairman, WTO panel

"To examine, in the light of the relevant GATT provisions, the matter referred to the

CONTRACTING PARTIES by the United States in document L/6445 and to make such findings as will assist the CONTRACTING PARTIES in making the recommendations or in giving the rulings provided for in Article XXIII:2." 3. On 3 April 1989, the Council was informed that agreement had been reached on the following composition of the Panel (C/164): Composition Chairman: Mr. Lars E.R. Anell Members: Mr. Hugh W. Bartlett Mrs. Carmen Luz Guarda CANADA - IMPORT RESTRICTIONS ON ICE CREAM AND YOGHURT Report of the Panel adopted at the Forty-fifth Session of the CONTRACTING PARTIES on 5 December 1989 (L/6568 - 36S/68)

<http://www.wto.org/english/tratop_e/dispu_e/88icecrm.pdf>

The United States argued that Canada had failed to demonstrate that it effectively restricted domestic production of milk. The differentiation between "fluid" and "industrial" milk was an artificial one for administrative purposes; with regard to GATT obligations, the product at issue was raw milk from the cow, regardless of what further use was made of it. The use of the word "permitted" in Article XI:2(c)(i) required that there be a limitation on the total quantity of milk that domestic producers were authorized or allowed to produce or sell. The provincial controls on fluid milk did not restrict the quantities permitted to be produced; rather dairy farmers could produce and market as much milk as could be sold as beverage milk or table cream. There were no penalties for delivering more than a farmer's fluid milk quota, it was only if deliveries exceeded actual fluid milk usage or sales that it counted against his industrial milk quota. At least one province did not participate in this voluntary system, and another province had considered leaving it. Furthermore, Canada did not even prohibit the production or sale of milk that exceeded the Market Share Quota. The method used to calculate direct support payments on within-quota deliveries assured that most dairy farmers would completely recover all of their fixed and variable costs on their within-quota deliveries. The farmer was permitted to produce and market milk in excess of the quota, and perhaps had an economic incentive to do so. 27. The United States noted that in the past six years total industrial milk production had consistently exceeded the established Market Sharing Quota, and concluded that the Canadian system was a regulation of production but not a restriction of production. Proposals to amend Article XI:2(c)(i) to replace the word "restrict" with "regulate" had been defeated; what was required was the reduction of production. The results of the econometric analyses cited by Canada provided no indication of what would happen to milk production in the absence not only of the production quotas, but also of the accompanying high price guarantees which operated as incentives to produce. According to the official publication of the Canadian Dairy Commission, a key element of Canada's national dairy policy was to promote self-sufficiency in milk production. The effectiveness of the government supply controls had to be compared to what the situation would be in the absence of all government measures.

#### The decreases regulations, not restriction. Voter for limits because they manipulate terminology to expand the hardest part of the rez to debate

Sinha 6

<http://www.indiankanoon.org/doc/437310/>

Supreme Court of India Union Of India & Ors vs M/S. Asian Food Industries on 7 November, 2006 Author: S.B. Sinha Bench: S Sinha, Mark, E Katju CASE NO.: Writ Petition (civil) 4695 of 2006 PETITIONER: Union of India & Ors. RESPONDENT: M/s. Asian Food Industries DATE OF JUDGMENT: 07/11/2006 BENCH: S.B. Sinha & Markandey Katju JUDGMENT: J U D G M E N T [Arising out of S.L.P. (Civil) No. 17008 of 2006] WITH CIVIL APPEAL NO. 4696 OF 2006 [Arising out of S.L.P. (Civil) No. 17558 of 2006] S.B. SINHA, J :

We may, however, notice that this Court in State of U.P. and Others v. M/s. Hindustan Aluminium Corpn. and others [AIR 1979 SC 1459] stated the law thus:

"It appears that a distinction between regulation and restriction or prohibition has always been drawn, ever since Municipal Corporation of the City of Toronto v. Virgo. Regulation promotes the freedom or the facility which is required to be regulated in the interest of all concerned, whereas prohibition obstructs or shuts off, or denies it to those to whom it is applied. The Oxford English Dictionary does not define regulate to include prohibition so that if it had been the intention to prohibit the supply, distribution, consumption or use of energy, the legislature would not have contented itself with the use of the word regulating without using the word prohibiting or some such word, to bring out that effect."

#### Precision—restrictions must be a distinct term for debate to occur, not just a general limitation

### DA

Nuclear modernization will get funded now, but the defense budget is under severe pressure.

Priest, 9-15-12

[Dana, The Washington Post, “Aging U.S. nuclear arsenal slated for costly and long-delayed modernization,” <http://www.washingtonpost.com/world/national-security/us-nuclear-arsenal-is-ready-for-overhaul/2012/09/15/428237de-f830-11e1-8253-3f495ae70650_story.html>]

The U.S. nuclear arsenal, the most powerful but indiscriminate class of weapons ever created, is set to undergo the costliest overhaul in its history, even as the military faces spending cuts to its conventional arms programs at a time of fiscal crisis.¶ For two decades, U.S. administrations have confronted the decrepit, neglected state of the aging nuclear weapons complex. Yet officials have repeatedly put off sinking huge sums into projects that receive little public recognition, driving up the costs even further.¶ Now, as the nation struggles to emerge from the worst recession of the postwar era and Congress faces an end-of-year deadline to avoid $1.2 trillion in automatic cuts to the federal budget over 10 years, the Obama administration is overseeing the gargantuan task of modernizing the nuclear arsenal to keep it safe and reliable.

#### The aff forces tradeoffs within the defense budget.

Snider, ‘12

[Annie, E&E reporter, 2-23, “Military’s alt energy programs draw Republicans’ ire,” <http://www.eenews.net/public/Greenwire/2012/02/23/2>]

The idea that the administration is using DOD as a more politically palatable vehicle for renewable energy investments is now reverberating across Capitol Hill, even as Pentagon officials flatly deny the allegations.¶ At a budget hearing last week, Navy Secretary Ray Mabus, the department's most high-profile alternative energy advocate, took volley after volley from Republicans on the House Armed Services Committee. They said that his priorities were misplaced, argued that spending on clean energy was taking money out of more important missions and hinted at a link between the Pentagon's green efforts and the prominence of former Silicon Valley clean-tech investors within the Obama administration.¶ "You're not the secretary of the energy, you're the secretary of the Navy," said Rep. Randy Forbes (R-Va.), who leads the subcommittee with jurisdiction over military energy and environment issues.¶ Prime among the lawmakers' complaints was that the military is paying a higher price for some forms of alternative energy at a time when DOD proposes cutting weapons programs and reducing forces in order to meet budget mandates.

#### Modernization is on the chopping block -- cutting funds kills deterrence and magnifies global threats.

#### Trachtenberg, ‘11

[David J., president and CEO of Shortwaver Consulting, LLC, previously served as principal deputy assistant secretary of defense (international security policy), acting deputy assistant secretary of defense (forces policy), and head of the policy staff of the House Armed Services Committee, 10-1, “Nuclear Fallback,” [http://www.nationalreview.com/articles/279610/nuclear-fallback-david-j-trachtenberg#](http://www.nationalreview.com/articles/279610/nuclear-fallback-david-j-trachtenberg)]

Political turmoil in the Middle East, Iran’s drive for nuclear weapons, and the buildup of China’s military are only a few of the worrisome trends that point to a prolonged period of global instability. Against this backdrop, the U.S. defense budget and the military capabilities it buys are being dramatically reduced in ways that will hinder our ability to shape or respond to these developments.¶ Over the next decade, defense spending will drop by anywhere from $450 billion to more than $1 trillion. The full extent of the cuts, and the national-security implications they foreshadow, are now in the hands of a congressional “supercommittee” charged with slashing overall federal spending. But cuts of this magnitude will translate into less military capability, a likely “dumbing down” of U.S. military strategy, a more problematic margin of military advantage over potential adversaries, and greater strategic risk. They are also likely to diminish America’s ability to advance U.S. policy objectives and secure a stable world order.¶ Not surprisingly, long-overdue investments in our aging and deteriorating nuclear capabilities and infrastructure — essential to maintaining a reliable and effective nuclear deterrent — are now on the chopping block as the military services seek to protect “usable” non-nuclear systems at the expense of “unusable” nuclear ones.¶ But the world remains a dangerous place, with nations and groups seeking nuclear weapons as a counter to U.S. military preponderance, a deterrent to U.S. action in regions vital to American national-security interests, a bargaining chip for political leverage, or a counter to regional threats. Nuclear weapons remain the great equalizer in world affairs, granting those that possess them greater influence over American policies and actions. Consequently, an effective and robust U.S. nuclear deterrent remains as important as ever.

#### Extinction

Schneider, ‘8

[Mark, Senior Analyst -- The National Institute for Public Policy, former senior officer in the DoD in positions relating to arms control and nuclear weapons policy, PhD in history -- USC, JD – GWU, July, “The Future of the U.S. Nuclear Deterrent,” Comparative Strategy 27.4, EBSCO]

Today, the United States, the world's only superpower with global responsibilities, is the only nuclear weapons state that is seriously debating (admittedly largely inside the beltway) about whether the United States should retain a nuclear deterrent. By contrast, the British Labour Government has decided to retain and modernize its nuclear deterrent. In every other nuclear weapons state—Russia, China, France, India, Pakistan, and allegedly Israel—there is general acceptance of the need for a nuclear deterrent and its modernization. Amazingly, the United States is the only nuclear-armed nation that is not modernizing its nuclear deterrent. Distinguished former leaders such a George P. Shultz, William J. Perry, Henry A. Kissinger, and Sam Nunn, despite the manifest failure of arms control to constrain the weapons of mass destruction (WMD) threat, call for “A world free of Nuclear Weapons” because “… the United States can address almost all of its military objectives by non-nuclear means.”1 This view ignores the monumental verification problems involved and the military implication of different types of WMD—chemical and biological (CBW) attack, including the advanced agents now available to potential enemies of the United States and our allies. A U.S. nuclear deterrent is necessary to address existing threats to the very survival of the U.S., its allies, and its armed forces if they are subject to an attack using WMD. As former Secretary of Defense Harold Brown and former Deputy Secretary of Defense John Deutch wrote in The Wall Street Journal, “However, the goal, even the aspirational goal, of eliminating all nuclear weapons is counterproductive. It will not advance substantive progress on nonproliferation; and it risks compromising the value that nuclear weapons continue to contribute, through deterrence, to U.S. security and international stability.”2 Why can't the United States deter WMD (nuclear, chemical, biological) attack with conventional weapons? The short answer is that conventional weapons can't deter a WMD attack because of their minuscule destructiveness compared with WMD, which are thousands to millions of times as lethal as conventional weapons. Existing WMD can kill millions to hundreds of millions of people in an hour, and there are national leaders who would use them against us if all they had to fear was a conventional response. The threat of nuclear electromagnetic pulse (EMP) attack, as assessed by a Congressional Commission in 2004, is so severe that one or at most a handful of EMP attacks could demolish industrial civilization in the United States.3 The view that conventional weapons can replace nuclear weapons in deterrence or warfighting against a state using WMD is not technically supportable. Precision-guided conventional weapons are fine substitutes for non-precision weapons, but they do not remotely possess the lethality of WMD warheads. Moreover, their effectiveness in some cases can be seriously degraded by counter-measures and they clearly are not effective against most hard and deeply buried facilities that are associated with WMD threats and national leadership protection. If deterrence of WMD attack fails, conventional weapons are unlikely to terminate adversary WMD attacks upon us and our allies or to deter escalation. Are there actual existing threats to the survival of the United States? The answer is unquestionably “yes.” Both Russia and China have the nuclear potential to destroy the United States (and our allies) and are modernizing their forces with the objective of targeting the United States.4 China is also increasing the number of its nuclear weapons.5 Russia is moving away from democracy, and China remains a Communist dictatorship. A number of hostile dictatorships—North Korea, Iran, and possibly Syria—have or are developing longer-range missiles, as well as chemical, biological, and nuclear weapons.6 They already have the ability to launch devastating WMD attacks against our allies and our forward deployed forces, and in time may acquire capabilities against the United States. Iran will probably have nuclear weapons within approximately 2 to 5 years.7 The United States already faces a chemical and biological weapons threat despite arms control prohibitions. Due to arms control, we do not have an in-kind deterrent. Both Iranian and Syria acquisition of nuclear weapons could be affected by sales from North Korea, which have been reported in the press.8

### DA

#### Hagel will win confirmation now, but it will be close – every ounce of political capital is key

Michael Falcone (writer for ABC News) January 7, 2013 “Cabinet Shakeup: No Such Thing As A ‘Slam Dunk’ (The Note)” http://abcnews.go.com/blogs/politics/2013/01/cabinet-shakeup-no-such-thing-as-a-slam-dunk-the-note/

But as ABC Chief White House Correspondent Jon Karl notes today, the confirmation of Hagel, a former Republican senator, “will be no slam dunk”: “Senate Democrats tell me there is no guarantee Hagel will win confirmation and that, as of right now, there are enough Democratic Senators with serious concerns about Hagel to put him below 50 votes. The bottom line: He may ultimately win confirmation, but not before a bloody fight in the Senate. On the plus side, Hagel is a decorated Vietnam veteran and a former Republican Senator who’s views on military issues closely match the president’s views. But he has already come under withering criticism from across the political spectrum. Among other things, he has come under fire for controversial comments on Israel (in 2008, he referred to Israel’s US supporters as ‘the Jewish lobby’), his opposition to some sanctions against Iran, and his suggestion, also in 2008, that the U.S. should negotiate with Hamas.” Time Magazine’s Mark Halperin had a similar prediction: “If Hagel has a good confirmation sherpa and performs well in his courtesy calls and at his hearings, he will likely be confirmed. But/and at a pretty high cost. Expect a LOT of people to want to testify against him. And don’t rule out a filibuster of this nomination, which would, obviously, change the math.” http://ti.me/VvwfU0 More on the rough road ahead for Hagel from ABC’s Martha Raddatz on”Good Morning America” today. WATCH: http://abcn.ws/VNTZBZ NOTED! ABC’s RICK KLEIN: It’s getting crowded in here. One consequence of the un-grand bargain is that Washington will be fighting fiscal battles again early this year — then likely later, too. The result is not just a feeling of déjà vu but of suffocation. Republicans and any coalition that wants to slow President Obama’s agenda — on immigration, gun control, energy policy, what have you — has the perfect way to do so now, perhaps indefinitely. “None of these issues, I think, will have the kind of priority that spending and debt are going to have over the next two or three months,” Senate Minority Leader Mitch McConnell said on ABC’s “This Week” yesterday. ABC’s AMY WALTER: For all the hand wringing about upcoming fights between the White House and Congress over Chuck Hagel, the debt ceiling and the sequester, a reminder that the two branches were designed to challenge each other. To be sure, this is a frustrating process— and one that has resulted in less than ideal outcomes. Voters say they like the idea of divided government, but they don’t like the reality of it. “THIS WEEK” REWIND: MCCONNELL: THE TAX ISSUE IS FINISHED. As President Obama and Republicans slowly approach the next round of deficit-reduction talks, Senate Minority Leader Mitch McConnell drew a line in the sand, in his interview with ABC’s George Stephanopoulos: no more tax increases. McConnell: “The tax issue is finished, over, completed. That’s behind us. Now the question is, what are we going to do about the biggest problem confronting our country and our future? And that’s our spending addiction. It’s time to confront it. The president surely knows that. I mean, he has mentioned it both publicly and privately. The time to confront it is now.” http://abcn.ws/Xbz4uz HEITKAMP: GUNG-CONTROL PROPOSALS ‘WAY IN EXTREME.’ After The Washington Post reported that Vice President Biden’s working group will press a broad gun-control agenday, newly elected Democratic Sen. Heidi Heitkamp, N.D., told ABC’s George Stephanopoulos those proposals would go to far. Heitkamp: “Let’s start addressing the problem. And to me, one of the issues that I think comes — screams out of this is the issue of mental health and the care for the mentally ill in our country, especially the dangerously mentally ill. And so we need to have a broad discussion before we start talking about gun control. … I think you need to put everything on the table, but what I hear from the administration — and if the Washington Post is to be believed — that’s way — way in extreme of what I think is necessary or even should be talked about. And it’s not going to pass.” GRETA VAN SUSTEREN GOES ON THE RECORD (WITH ABC NEWS): Fox News’ Greta Van Susteren has interviewed some of the biggest names in U.S. politics on her show, “On The Record,” but you’ll never guess who her dream guest dream political guest is. Van Susteren, who appeared on the “This Week” roundtable Sunday, answered viewer questions from Facebook and Twitter for an “All Politics is Social” web exclusive hosted by ABC’s Kaye Foley. About that dream guest, here’s her answer: “Bo, the first dog. I love animals. I’d love to be on Animal Planet. On Animal Planet you aren’t dealing with death and destruction and people fighting with each other all the time. To the extent that Bo is a part of politics, I’d love to interview Bo. Plus, I love the fact that he looks like he’s wearing white knee socks. Bo is my favorite.” WATCH the full interview: http://abcn.ws/13bVdfF THE BUZZ: with ABC’s Chris Good (@c\_good) SCOTUS RETURNS: GAY MARRIAGE, AFFIRMATIVE ACTION, VOTING RIGHTS. The Supreme Court returns to the bench today, and ABC’s Ariane de Vogue reports: The justices will hear two potentially blockbuster cases in March concerning gay marriage. One of the cases–Hollingsworth v. Perry–addresses whether there is a fundamental right to same-sex marriage. The other–Windsor v. United States–deals with the federal law that defines marriage as between a man and a woman. In both cases, the court will hear arguments on potential procedural obstacles that could stop it from getting to the core constitutional questions. The court will also hear a case challenging a key provision of the Voting Rights Act. Section 5 of the law says that certain states with a history of voter discrimination must clear any changes to their election laws with federal officials in Washington. Lawyers for Shelby County, Ala., are challenging the constitutionality of Section 5. The case, called Shelby County v. Holder, will be argued Feb. 27. The day before, the court will hear arguments in Maryland v. King, a case about whether Maryland officials can collect DNA from someone who has been arrested but not convicted of a crime. http://abcn.ws/WD3Fir SANDY AND THE CLIFF: WILL PAUL RYAN’S VOTES HAUNT HIM IN 2016? Paul Ryan voted in favor of the “fiscal cliff” tax deal but against a Hurricane Sandy relief bill that would add $9.7 billion in debt. ABC’s Shushannah Walshe reports on the potential implications for 2016: The two votes four years from now may mean nothing or could haunt Ryan if he decides to run for president in 2016, depending on who is battling for the nomination. The fiscal cliff vote could become an issue, particularly if his opponent is Florida Sen. Marco Rubio who could highlight the fact that Ryan voted for the measure while Rubio voted against it. The Sandy vote could also be resurrected if his rival is New Jersey Gov. Chris Christie who blasted members of his own party this week when Boehner decided not to vote on a $60 billion Sandy relief package after assuring lawmakers from the affected he states he would. … Will Ryan be more vocal on the looming battle to raise the debt ceiling? It will be one to watch. http://abcn.ws/Sb0YZE OBAMA’S VACATION BY THE NUMBERS. With President Obama returning from a nine-day vacation in Hawaii with family and friends, ABC’s Mary Bruce reports: Obama played FIVE rounds of golf with SEVEN different partners, spending roughly THIRTY hours on TWO different courses on Oahu. The president made FIVE early morning trips to the gym at the nearby Marine Base at Kaneohe Bay. … The Obamas ventured out for dinner with friends FOUR times, leaving their Kailua vacation home for gourmet Japanese meals at Nobu and Morimoto … The president interrupted his vacation for SIX days to negotiate the “fiscal cliff” in Washington. All told, he will have spent roughly FORTY hours on Air Force One flying between D.C. and Hawaii. http://abcn.ws/WA0xUx PELOSI: MORE TAXES IN NEXT CLIFF DEAL. The fiscal cliff isn’t quite over, and House Speaker Nancy Pelosi says tax revenues must be on the table as President Obama and congressional Republicans negotiate over how to avert budget sequestration. The Hill’s Mike Lillis reports: “‘In this legislation we had $620 billion, very significant … changing the high-end tax rate to 39.6 percent. But that is not enough on the revenue side,’ Pelosi told CBS’s Bob Schieffer in an interview taped Friday. Without offering many specifics, the California Democrat said she wants to scour the tax code for unnecessary loopholes and ‘unfair’ benefits that help those–either companies or individuals–who don’t need it.” http://bit.ly/WnUi5y CHUCK HAGEL: LET THE SNIPING BEGIN. Rumblings on Capitol Hill, already, are not good. Politico’s Scott Wong and Manu Raju report: “Sen. Lindsey Graham (R-S.C.), an Air Force reservist who serves on the Armed Services Committee that will consider the nod, said Hagel would hold the ‘most antagonistic’ views toward Israel of any defense secretary in U.S. history. … ‘It is a strange signal for the White House to send that they are willing to fight for Hagel but not Rice,’ one Senate Democratic aide said Sunday. ‘Democrats are not currently unified behind Hagel, and it will take some real work by the administration to get them there, if it’s even possible.’ ‘I can’t imagine why [Obama] would choose to burn his political capital on this nomination. For what? There is no constituency for Chuck Hagel,’ one senior GOP aide said. ‘Obama will expend every ounce of political capital he has to get him across the finish line. Dems will hate this.” <http://politi.co/VFMgc7>

#### Hagel is key to a soft landing on a laundry list of critical military transitions that are key to prevent global conflict

Jessie Daniels (Truman National Security Project Fellow, worked in the US Senate) January 7, 2013 “Chuck Hagel Nomination: A Look At the Security Threats He Will Face” http://www.policymic.com/articles/21946/chuck-hagel-would-be-a-defense-secretary-for-the-21st-century

As President Obama heads into his second term, and a new cabinet comes into shape, attention now focuses on the leading choice for Secretary of Defense: Chuck Hagel. As the Chairman of the Atlantic Council, and former Nebraska GOP Senator, Hagel certainly has the policy chops and political bona fides to take over the reins from the current Secretary Leon Panetta. The next secretary of defense will immediately be faced with managing American commitments and new priorities. The Pentagon will continue its rebalance — or "pivot" — toward the Asia-Pacific, where the U.S. has already been bolstering its presence in the region. At the same time, the next secretary of defense will preside over a transition in Afghanistan that insiders say appears harder than anticipated — both politically and operationally. Then there's the Middle East at large, which presents a separate set of challenges: Egypt's rocky political transitions, an intransigent Iran, and escalating violence in Syria. Key in managing the U.S. role in each and all of these situations is recognizing the limits of American power and influence. Fortunately, Hagel gets how complex the picture is, and would be committed to ensuring that the U.S. military does not become overextended yet again. America's commitments will also be shaped by Pentagon budget reforms. The Defense Department is scheduled to trim $487 billion in spending over the next decade. If the sequester cuts eventually do go into effect — the fiscal cliff deal only delayed them by two months — the Pentagon will face an additional $500 billion in cuts. If confirmed as the next secretary of defense, Hagel would already come into the position with the mindset that the Defense budget is "bloated." Moreover, his political experience on Capitol Hill would prove useful in guiding the department through reforms that, though necessary, are likely to be highly politicized and contentious. Aside from these near-term challenges, the next secretary of defense will also need to prepare for 21st century threats. Tomorrow's threats could just as easily come from non-state actors or take place in cyberspace. Issues once unconnected to national security — such as the environment — now play critical roles for America's military, as resource insecurity (like water or energy) can escalate the risk of conflict. During his time in the Senate and now at the Atlantic Council, Hagel has been a strategic thinker who understands the interconnectedness of an array of threats. He has demonstrated the ability to understand the terrain of these new battlefields, and would be well-prepared shape the military as it prepares for this new security environment. Considering the overall breadth and depth of his experience, Chuck Hagel would bring many relevant strengths to the table — which is all the more important, since the next Pentagon chief will find a full plate of challenges upon arrival.

### DA

#### The plan undermines Chinese wind competitiveness

**Chhabara 8** (Rajesh, Climate Change Corp, “Who’ll Solve the Wind Turbine Supply Crisis?” 4/29/8, http://www.climatechangecorp.com/content.asp?contentid=5344)

In April this year, China set a massive target of expanding wind power capacity to 100,000MW by 2020, from the current 5,600MW. Previously, in 2006, China passed the Renewable Energy Law, which requires power grid companies to buy the entire output of registered renewable energy producers in their areas. The National Development and Reform Commission (NDRC), China’s top industry planning body, sets the purchase price.

CLSA Research estimates that the US, Europe and China will be spending about $150 billion on wind projects in the next five years.

US dithers, China surges ahead

In the US, an unstable regulatory regime is one factor hindering turbine production.

Sporadic tax breaks for renewable energy projects, usually on a year-to-year basis, have discouraged US manufacturers from scaling up. Congress, for example, has stalled the extension of PTCs beyond the end of 2008.

In the past, when tax credits lapsed the demand for wind turbines came crashing down the following year. If the trend is repeated this time, it may actually result in overcapacity of turbine manufacturing in the US, at least for the domestic market.

Yet energy analysts say that if the US market slows down due to lack of tax breaks, **China will more than compensate.**

In the short term, massive demand from China may further tighten turbine supply, but expanding local production should ease the global crunch within a couple of years. Today, the Chinese market is dominated by the top three foreign manufacturers, Vestas, GE Wind and Gamesa, who enjoy a combined market share of 47%. However, this is set to change.  
Zhang Guobao, vice president of China’s NDRC, says: “We are planning several measures to support the wind power industry including localisation of equipment production.” According to the Global Wind Energy Council (www.worldenergy.org), China will become the top wind turbine manufacturer by 2009.

To encourage production, China increased tariffs on imported wind turbines in May, while slashing import taxes on components. The latter incentive, to help Chinese firms compete internationally for scarce parts, will put pressure on the industry in the rest of the world. But, again, this is a short-term problem. Government rules already require that turbines have at least 70% domestically produced components. As a result, leading manufacturers have been setting up factories in China.

As things presently stand, most Chinese manufacturers can produce only smaller turbines, up to 1MW. Chinese firms are trying to overcome this weakness by licensing agreements and joint ventures with western companies.

Goldwind, China’s largest wind turbine maker, raised $245 million through an Initial Public Offer (IPO) early this year to fund a huge expansion. LM Glassfiber of Denmark, which has a cooperation agreement with Goldwind, opened its second turbine blade factory in China in October last year.  
Other major Chinese turbine makers – Sinovel, Windey, Dongfang, MingYang and HEC – are also expanding capacities and shopping for joint ventures and licensing agreements with global players.

China High, the country’s largest manufacturer of gearboxes – the most critical and complex part in a wind turbine – plans a four-fold increase in production in the next two years. The company is aiming to become one of the top three global manufacturers of gearboxes, with half of revenue coming from exports.   
China High, which already supplies to GE, REpower, Nordex and Goldwind, raised $272 million through an IPO to fund massive expansion. The company is raising another $250 million through convertible bonds and plans to buy a special-steel plant to secure supplies and reduce costs. Special steel accounts for half the cost of gearboxes.  
Among the foreign players, Germany’s Nordex – the fourth largest wind turbine maker in China – announced in November that it would quadruple production capacity to 800MW by 2011 to meet growing demand.  
Currently, MingYang is China’s only turbine exporter. But in the next three to five years, the number of exporters is likely to grow as other firms aggressively expand and acquire technology. Foreign manufacturers may be scaling up their production in China, but in the longer term it is the emergence of Chinese turbine and component manufacturers that will probably change the global landscape of wind power.

Response from the big players

With over 8,000 parts required to make a wind turbine, requiring a large network of reliable suppliers, component supply is creating the most problematic bottleneck for turbine makers. In order to meet increasing demand, leading players are rushing to beef up their supplies by setting up new plants, signing long-term contracts with suppliers and even making acquisitions.

#### That’s key to the Chinese development model

**Wang, 05** – Michigan State University (Joy, Wind Power in China: Social Acceptability and Development of a Domestic Manufacturing Industry”, http://forestry.msu.edu/China/New%20Folder/Joy\_Wind.pdf)

China does not necessarily require the development of its own domestic wind industry and market, but from the successes of various other countries utilizing wind power, it seems such development is key to the success of wind energy within a country.

“All leading turbine manufacturers are from countries with significant domestic wind power development, and most all have been very successful in their home markets…the size of the home market is a key determinant of global success in wind turbine manufacturing. Moreover,…the top 5 countries in terms of installed capacity are also home to 9 of the top 10 wind companies globally” (Lewis & Wiser, 2005, p. 58).

The wind power market and domestic turbine manufacturers support each other. To form a strong market, a government can formulate incentives for industry to become involved. “Companies facing unstable markets are less willing to spend money on R&D and product development” (Lewis & Wiser, p. 58). With a more stable wind market, more investor interest could be gathered, and more spending on long term manufacturing R&D could be stimulated.

2. Decrease costs to further the market

A domestic wind industry can lower costs and further the market. “As the market has grown, wind power has shown a dramatic fall in cost. Production costs have fallen by up to 50% over 15 years” (BTM Consult, 2005, p. 10). Wind turbines hold about 75% of the total cost of an onshore wind project (BTM Consult, 2005,). With localized production, not only would less be spent on transportation, labor costs would also be much cheaper in China than abroad. A significant savings could be realized in turbine production, bettering the economics and feasibility of large-scale utilization of wind energy in China.

3. Better accessibility to best available wind technology

With its booming economy and strong desire to prove itself, China is demanding better products with its increasing wealth. The wind industry will be no different. If no domestic turbine manufacturers develop cutting-edge technology, any technology China receives will be second rate. Products are likely tested intensely before placement on the global market, where their performance reflects upon the manufacturing company. All commercially sold turbines will generally be reliable, with the newest technology in continued research and testing.

If China relies on non-domestic wind turbine manufacturers to supply its wind power generation facilities, it cannot expect the best technology to enter its borders first. So far, the largest installation in China to date is 1.5MW at the Nanhui and Chongming wind farms in Shanghai by General Electric (GE Wind), while the largest wind turbine installation to date has been 300 MW in the United States (BTM Consult, 2005), 200 times larger. Higher turbine capacities will transform to land savings since more electricity is generated per turbine. With limited arable land, it would make sense for China to search for better and larger turbines to reduce land requirements for the same amount of generated electricity.

4. Opportunity to demonstrate technological prowess

With its economic rise, China has shown an increasing desire to prove itself. The 2003 launch of China’s first manned rocket demonstrates its drive to push domestic technology to further limits. The successful rocket launching caused a swell of national pride. A show of local technological prowess in wind energy could cause a similar effect (Lewis & Wiser, 2005), while also offering a relatively new global industry in which to make a presence. From this aspect, it is not surprising to see China’s desire to have its own domestic wind power industry.

5. Alleviate power shortages in areas of need

Wind power could be used to alleviate brown-outs and other electricity shortages in the more affluent east coast. Near the time of Wallace’s paper (1997), over 20 million households in the heavily populated areas were without electricity. With the largest wind resources located along the southeastern coast and an intense appetite for energy in the same region, it is likely wind power can help alleviate the lacking electricity supply there.

6. Employment opportunities

The creation of a domestic wind power market and industry could generate employment opportunities in both urban and rural areas. A strong domestic market and wind turbine manufacturing industry will create a demand and supply for wind power. By having a local manufacturing base, China could mobilize significant numbers of its currently unemployed

masses. In 2003, 8 million urban people registered unemployment. Once the numbers of unregistered urban unemployed is considered, the total could further increase. From 1998-2003, unemployment grew at an annual rate of 5.6% (“China Statistical,” 2004). With almost 60% of China’s 2003 population located in rural areas (“China Statistical,” 2004), the total unemployed number could be significantly larger. Wind Force 12 estimates that 444,000 individuals will be occupied in the Chinese wind power industry in 2020 (2005).

7. Poverty alleviation

Though the demand for electricity may be greatest along the coast, the wind turbine manufacturers may be elsewhere. Strategically placed manufacturers throughout rural China could provide higher paying work, **alleviating poverty**. The 2003 per capita net income of rural households in the 12 western provinces was 1966¥, less than 75% of the national per capital rural net income (“China Statistical,” 2004).

8. Catalyst for further infrastructure development

A domestic wind industry could provide an additional catalyst for the development of efficient transportation systems in which to transport wind related turbines. Factories in rural locations would not necessarily be distanced from the final product destination. With 23.9% of the national energy industry located in the 12 western provinces (“China Statistical,” 2004), a well-established energy transmission infrastructure must already exist. Much of China’s wind resources also are in the area. Not only will manufacturers to realize financial savings by being geographically closer to more final product destinations, the location of wind power manufacturers there could also stimulate the improvement and adaptation of existing infrastructure to suit new needs. This possibility might require large financial resources, but the reaped benefits might justify further exploration.

9. Environmental benefits

Other environmental benefits can be realized through localized production outside of the clean energy turbines produce. If turbine manufacturers locate to more rural areas, resident income and standard of living will increase. Farmland might be less stressed, as income no longer relies singly on the land’s goods. Grasslands could benefit similarly as flock size decrease when factory work is obtained. From such possibilities, wind energy could potentially benefit soil stability. As school fees become more affordable, educational levels will increase. Higher educational attainment could increase environmental consciousness and also lessen environmental degradation.

#### Solves CCP collapse

**Pethokoukis 12-1-**08 (James, US News, “Bad Economy Could Cause China Crackup” <http://www.usnews.com/blogs/capital-commerce/2008/12/1/bad-economy-could-cause-china-crackup.html?s_cid=etRR-0126>)

¶ I have written a series of blog posts warning about the geopolitical and economic fallout of a sharp slowdown in China's economy. Simply put: Slower growth **could lead to** dangerous political instability. **The sole source of the** authoritarian **government's legitimacy has been its ability to deliver an even-rising standard of living** for more than a generation. Don't believe me? Here is what President Jintao Hu said over the weekend at a party meeting:  ¶ *“In this coming period, we will starkly confront the effects of the sustained deepening of the international financial crisis and pressure as global economic growth clearly slows. ... Whether we can turn this pressure into momentum, turn challenges into opportunities, and maintain steady and relatively fast economic development is a test of our Party's capacity to govern.”*  ¶ This is why China has been hesitant to allow any dramatic appreciation by the yuan vs. the dollar. To the extent that a stronger currency slows the economy, the ruling Communist Party views a rapid yuan appreciation as an existential threat. This what journalist Will Hutton, author of *The Writing on the Wall: Why We Must Embrace China as a Partner or Face It as an Enemy*, [told me early last year](http://www.usnews.com/usnews/biztech/articles/070105/5china.htm):  ¶ *"Unrest is growing even under current conditions. Such a rapid appreciation of the yuan over a short period could be a tipping point for a wave of unrest, which could threaten the regime's stability. The party leadership sees the demand for fast yuan appreciation as an act of economic warfare. In these terms, you can see why. ... The World Bank estimates that if China's growth rate fell by just 2 percent, up to 60 percent of China's bank loans would become nonperforming–so threatening both China's and, via Hong Kong, Asia's financial system. The flow of saving to finance the U.S.'s deficit would dry up, probably forcing U.S. interest rates up–so worsening the economic slowdown. ... There is the risk of a credit crunch forced by the banking system being overwhelmed by nonperforming loans. ... The risk of political instability is low, but it exists."*  ¶ Me: Let's remember that China a) has been -- along with America -- one of the primary engines of global economic growth as well as buy of U.S. bonds, and b) has nuclear weapons. While no freedom-loving member of Western Civilization has any love for the current despotic regime, neither do we want to see political and economic chaos in China. Fun China Fact: Back in the 1990s, Pentagon analysts thought a bad economy could result in the fall of the Communists from power and the political dissolution of the country into maybe a dozen smaller nations. Hey, have fun, Hillary!

#### Nuclear war

**Plate 2003** (Tom, Professor at UCLA, The Straits Times, June 28, L/N)

But, while China's prosperity may be good for Americans, is it necessarily the same for the totalitarians running China? After all, having created a runaway economic elephant, will the Communist Party leaders be able to stay in the saddle? Before long, the Chinese middle class alone may approach the size of the entire population of America. It will want more freedom, not less – bet on it. But imagine a China disintegrating – on its own, without neo-conservative or Central Intelligence Agency prompting, much less outright military invasion – because the economy (against all predictions) suddenly collapses. That would knock Asia into chaos. A massive flood of refugees would head for Indonesia and other places with poor border controls, which don't want them and can't handle them; some in Japan might lick their lips at the prospect of World War II Revisited and look to annex a slice of China. That would send Singapore and Malaysia – once occupied by Japan – into nervous breakdowns. Meanwhile, India might make a grab for Tibet, and Pakistan for Kashmir. Then you can say hello to World War III, Asia-style. That's why wise policy encourages Chinese stability, security and economic growth – the very direction the White House now seems to prefer.

### CP

#### The United States Federal Government should establish a coordinating body within the Department of Defense to develop a competitive, performance-based procurement standard for assuring Department of Defense energy security. Department of Defense acquisition of energy technology should meet the following requirements:

--sustaining military operations

--eliminating vulnerabilities in its supply line

--Naval railgun power

--reducing global warming

#### The Department of Defense should create a reverse auction for contracts with energy project developers to supply the technology that meets these requirements at lowest cost. Contracts should be awarded through a series of six monthly auctions, with contracts awarded to companies that meet these performance requirements at the lowest cost, and demonstrating decreasing costs and continued performance over multiple auction rounds.

#### Solves without picking winners by creating competition over a portfolio of tech—substantially reduces energy cost

**Wood, 12** – Gratten Institute Program Director (Australia) (Tony, “Building the bridge: A practical plan for a low-cost, low-emissions energy future” <http://grattan.edu.au/static/files/assets/a8778779/Building_the_bridge_report.pdf>

Governments must address these market failures, beyond putting a price on carbon. They must provide the credible financial return and predictable policy settings that companies need to make substantial, risky investments. But how can they support new technologies without `picking winners’ or, conversely, gambling that the market alone will do the job? This report sets out an innovative proposal to build a bridge between the current market and the market for low-emissions technologies Australia needs.

Here is how it would work: Government enters into long-term contracts with project developers to buy electricity at a price that makes low-emission projects viable. It awards contracts through a series of six-monthly auctions, held over 10 years. Competition to win contracts delivers the lowest price for low-emission power. Developers can invest knowing the contracts will be honoured irrespective of government policy on the carbon price. A 10-year timeframe and clear rules provide companies with a predictable investment environment, and multiple opportunities to invest. The scheme may produce about 5 per cent of Australia’s power.

The auctions will award power contracts in specific technology categories. Over multiple rounds, technologies must deliver both low costs and show that their costs are falling. Those that do will gain more opportunities to build projects; those that do not will have opportunities withdrawn. The outcomes clarify the current uncertainty about which technologies will best meet Australia’s long-term needs. It is too soon to punt on just one or two horses. Instead, government should pay to develop a portfolio of options from which a proven set of technologies can emerge.

Government should still fund technology R&D. But learning what works on the ground is the only way to identify the best mix for reliable, low-cost, low-emissions energy supply. The auction process gives companies the chance to gain practical deployment experience, and thereby to cross the bridge to commercial viability. Once technologies are viable, government should withdraw support, beyond a well-managed carbon price.

#### The performance standard maximizes ability to meet energy needs

**Crowley et al, 7 –** chair of study done by LMI Government Consulting for the DOD (Thomas, TRANSFORMING THE WAY DOD LOOKS AT ENERGY: AN APPROACH TO ESTABLISHING AN ENERGY STRATEGY

<http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA467003&Location=U2&doc=GetTRDoc.pdf>)

To coordinate the efforts of DoD components, provide strategic direction, focus research and development efforts, and monitor compliance with energy-efficiency guidelines, DoD needs an effective energy governance structure. We recommend that DoD establish a coordinating body with policy and resource oversight authority. Considering the need for collaboration among the services and DoD, we believe an empowered committee would be more effective that a single leader.

From our survey of emerging energy technologies, the department has a wide range of options for addressing energy efficiency and alternate sources of energy. Under the guidance of the coordinating body, DoD can begin a structured analysis of how to apply organizational, process, and technology changes to execute a strategy to reduce energy dependence. Although assessing the strategic, operational, fiscal, and environmental impacts of a change provides a mechanism to value potential choices, these impacts may not provide sufficient insight to be determinative. To promote the changes that will have the greatest utility in addressing the disconnects, we recommend that the department begin by focusing on three areas:

􀂡 Greatest fuel use (aviation forces)

􀂡 Greatest logistic difficulty (forward land forces and mobile electric power)

􀂡 Greatest warrior impact (individual warfighter burden).

DoD energy transformation must begin in the near term, addressing current practices and legacy forces, while investing for long-term changes that may radically alter future consumption patterns. We recommend a time-phased approach to reduce our reliance on fossil and carbon-based fuels. This approach includes the following:

􀂡 Organizational and process changes that can be implemented immediately

􀂡 Engineered solutions, to improve the efficiency of current forces and those nearing acquisition

􀂡 Invention of new capabilities, employed in new operational concepts, for those forces yet to be developed.

Applying this approach to the three focus areas will give DoD an opportunity to develop portfolios of solutions that can reduce energy use and dependence**. The** coordinating **body can evaluate these portfolios** to **against** the energy disconnects to identify optimal solutions across the services, broader **department objectives**, and U.S. government strategic objectives and energy efforts. The coordinating body can then focus technology development as required to achieve the desired solutions.

For the energy transformation to be successful, DoD’s senior leaders must articulate a clear vision for the change and must ensure—through their sustained commitment and active participation—that it becomes engrained in the organization’s

ethos. We propose the following vision:

DoD will be the nation’s leader in the effective use of energy, significantly reducing DoD’s dependence on traditional fuels and enhancing operational primacy through reduced logistics support requirements.

Establishing a goal for mobility energy efficiency will provide near-term objectives in support of the vision, enhance operational effectiveness by reducing logistics support requirements, and free resources for recapitalization of the force. Our estimates show that implementing a 3 percent reduction per year until 2015 could result in savings of $43 billion by 2030 based on Energy Information Agency reference case price projections, without including any multiplier effects.

#### Specifying models in advance creates massive cost overrun and performance breakdown – can’t predict which tech is best

**Hansen, 3** – LTC, US Army (Richard, “COMPETITION: A MEANS TO TRANSFORM THE DEFENSE INDUSTRIAL BASE,” USAWC STRATEGY RESEARCH PROJECT,

http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA415099&Location=U2&doc=GetTRDoc.pdf)

Our current defense acquisition environment has received much harsh criticism. The population of skeptics continues to grow and includes senior Department of Defense (DOD) leaders. Consider the recent comments by Secretary of Defense Donald Rumsfeld: I worry about the technology base in this country. The degree of competition is declining in the defense industry. The longer the large defense contractors deal with the Defense Department, the more they become like the Defense Department—and I don’t say that as a compliment. They get big and slow and sluggish and bureaucratic. …That means that the government tends not to have the kind of interaction with the creativity and innovation that exists in our society.1 Such skepticism is understandable. The weapon systems development cycle is frequently characterized by cost overruns and schedule delays. These cost and schedule setbacks are sometime quite significant and measured in billions of dollars and years of delays. Furthermore, while some technologies are clearly superior to threat capabilities, other technologies are less state-of-the art than commercial equivalents. Although it may be convenient to point the finger at a “Cold War” industry, they are not solely to blame. The defense research, development, and acquisition process is methodical, disciplined, thorough, safe, and compliant if not obedient at times to government legislation and regulations. All of these are arguably valuable qualities of scientific research and system engineering, but are, in a word, slow. This same methodical process is cumbersome to many, submissive or at best acquiescent to various stakeholders, and predominately risk averse. While this risk aversion is not necessarily preferred, it too is understandable.

Some risk is always inherent in developing a new technology: It may not work as expected; it may be more costly than expected; planned production techniques may not be appropriate. Despite these inherent risks, the process and its **players can be** overly optimistic in the planning stages. That optimism can and often does influence our perceptions of the technological maturity of the effort and the costs and schedule required to develop a product. Our optimism can and often does influence us to underestimate the risks associated with the technical solutions and integration required to develop a product. When critiquing warfighting plans, General Richard E. Cavazos, one of the Army’s great warfighters and now a senior army mentor, always offered, “The enemy has a vote.” Similarly, in the weapons research, development, and acquisition process, “technology has a vote.” When operating at the technological frontier, uncertainty—about both cost and performance—makes it difficult, if not impossible, to specify in advance precisely what is required of particular systems and how much such systems are likely to cost.2 When technology is not as mature as we perceive it to be, our optimism turns to pessimism at slowed progress and partial results. The weapon system development is suddenly short on resources to mature the technology and long on risk. A competitive environment reduces the cost and schedule risks by stimulating technology maturation and its integration. When working with a sole source developer this stimulus is missing. Despite some past and recent weapons, platforms, and munitions successes, all of these aspects have exposed the defense acquisition process and our industrial base to extremely harsh criticism and created a lack of confidence among some of our most senior leaders.

#### Early lifecycle competition is key to innovation – plan is procurement disaster and causes lock-in

**Hansen, 3** – LTC, US Army (Richard, “COMPETITION: A MEANS TO TRANSFORM THE DEFENSE INDUSTRIAL BASE,” USAWC STRATEGY RESEARCH PROJECT,

http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA415099&Location=U2&doc=GetTRDoc.pdf)

Increased industrial competition can be beneficial throughout the defense acquisition lifecycle, provided the benefits outweigh the costs. There may be times when the savings generated are less than the costs of a second competitor, for example, a second competing production line. However, leveraging competitive market forces early in the R&D process has proven very beneficial. Furthermore, this **competition** early in the lifecycle may be imperative given the growing enthusiasm for evolutionary acquisition and a procurement trend that suggests more frequent but smaller production lots and less total production quantity. Early competition stimulates efforts to mature technology and solve system integration challenges. The lack of this technological maturity has certainly been a factor that has contributed to our dissatisfaction with the defense acquisition system. Consider multiple studies from the Government Accounting Office:

· DOD Faces Challenges in Implementing Best Practices, 2002.

· Better Matching of Needs and Resources Will Lead to Better Weapon Systems Outcomes, 2001.

· Employing Best Practices Can Shape Better Weapon System Decisions, 2000.

· Better Management of Technology Development Can Improve Weapon Systems Outcomes, 1999.

· Best Commercial Practices Can Improve Program Outcomes, 1999.

· Improved Program Outcomes Are Possible, 1998.

A consistent theme in these studies indicates DoD’s inclination to commit to a formal program start too early.15 Those unsuccessful program initiations were characterized by a lack of systems engineering and resulting immature technology. **That** lack of upfront systems engineering **coupled with a lack of competition can** lead to disaster.

#### Turns case and solves better

**Hansen, 3** – LTC, US Army (Richard, “COMPETITION: A MEANS TO TRANSFORM THE DEFENSE INDUSTRIAL BASE,” USAWC STRATEGY RESEARCH PROJECT,

http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA415099&Location=U2&doc=GetTRDoc.pdf)

Competition can help reduce cycle times, lower costs, and improve innovation and weapon systems performance. It can be beneficial throughout the product lifecycle, from development through sustainment and retirement. Moreover, competition will become imperative, particularly early in the research and development (R&D) phases, given the growing enthusiasm for evolutionary acquisition and quicker development and production cycle times. This increased competition might allow us to achieve our objectives of fixing the process and concurrently developing the products and services that the warfighter requires. In the commercial sector and in many defense industry examples, competition not regulation compels industry to integrate advanced technologies into producible systems and deploy them to the marketplace—-in this case the warfighter--in the shortest time practicable.

### K

#### Financialization of energy production is a neoliberal tool to subvert communal agency—fuels inequality and unsustainable practices

**Hildyard et al 2012** – \*founder and Director of The Corner House, a U.K. research and advocacy group focusing on human rights, the environment, and development, co-editor of The Ecologist, \*\*co-founder of the Durban Group for Climate Justice (February, Nicholas Hildyard, Larry Lohmann and Sarah Sexton, The Corner House, “Energy Security For What? For Whom?”, http://www.thecornerhouse.org.uk/sites/thecornerhouse.org.uk/files/Energy%20Security%20For%20Whom%20For%20What.pdf, WEA)

The neoliberal market-driven approach to energy policy in Europe and¶ North America that is actively promoted throughout the world by the¶ International Monetary Fund and the World Bank and through bilateral¶ investment treaties and the Energy Charter Treaty is barely 30 years¶ old. Prior to the 1980s, energy – oil, gas, coal and electricity – was¶ largely provided either by state monopolies at prices determined by the¶ state with investment centrally planned by government bureaucracies,¶ or by private monopolies subject to government oversight and regulation to protect users from excessive charges. Markets, in which for-profit companies competed with each to generate, distribute and supply¶ “energy”, were considered “hopelessly inadequate in providing appropriate energy supplies,”¶ 3¶ considered to be “the lifeblood of the world¶ economy.”4¶ “Moving to the market,” however, was proposed as a way of ensuring¶ investment in energy infrastructure – power plants, transmission systems and storage capacity – that would not only guarantee supplies to¶ consumers at cheaper prices but would also direct investment to the¶ most cost-effective means of reducing carbon emissions.¶ 5¶ But markets have singularly failed to deliver on these promises. Directly opposed to forms of social and economic organisation that seek¶ to guarantee the shared right of all to survival, market-based energy¶ policies have led to the exclusion of those who cannot afford to pay for¶ the energy they require to meet their basic needs. The **financialisation**¶ **of “energy**”– where the production and distribution of oil, gas and electricity is mediated and shaped not just by markets in general but by¶ financial markets in particular,¶ 6¶ and where capital is accumulated primarily through financial speculation rather than production – is also¶ **jeopardising investment in the infrastructure that might enable a just**¶ **transition** to a sustainable and equitable climatic future. Investment is¶ diverted into trading on money or the products of money, often creating¶ energy shortages in the process through the speculative “gaming” of¶ energy markets. Just as energy is now “saturated with the language of¶ security”,¶ 7¶ so, too, it is “infused by the logic of finance”,¶ 8¶ even though¶ financialisation is conspicuously absent from energy security narratives.¶ Market-led policies **marginalise the role of communities** and ordinary¶ people in decision-making: instead “choices” about future energy technologies and use are left to those who have economic and political¶ power within the range of markets that affect energy. The input of¶ consumers is reduced to the (limited) decisions they can make within¶ energy retail markets based on price signals alone: the cost of electricity or gas. Debates over **how society might be differently organised** to¶ generate and use (less) “energy” in different ways are entirely sidelined,¶ except where they might provide opportunities to make money.¶ Meanwhile, efforts to address climate change through carbon trading¶ and other market mechanisms are fatally delaying the action that is¶ necessary to prevent runaway global climatic instability, whilst at the¶ same time creating new sources of conflict and insecurity.

#### The impact is extinction—focus on production and technology in the neoliberal frame generates crises and precludes other orientations

**Holleman 2012** – assistant professor of sociology at Amherst, PhD in sociology from the University of Oregon (June, Hannah, sociology dissertation, University of Oregon, “Energy justice and foundations for a sustainable sociology of energy”, https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/12419/Holleman\_oregon\_0171A\_10410.pdf?sequence=1, WEA)

As Marilyn Waring noted twenty years ago, under this system, when there is an ¶ environmental catastrophe, like the Exxon Valdez oil spill in Alaska, or the current BP oil ¶ spill in the Gulf, companies make an enormous profit cleaning up, or at least professing ¶ to do so. GDP goes up. If someone is sick, if they die a long, drawn-out death from ¶ cancer, there is profit to be made. There is no money to be made in human and ecological ¶ health and well-being. If communities grow their own food, the global food market ¶ significantly decreases; if people walk rather than drive, the oil and car companies don’t ¶ make money. If education is free, who benefits? Maybe most people, and the society at ¶ large, maybe even the environment, but not necessarily the shareholders. Therefore, it is ¶ much more economically efficient to let the market shape education. Today students take ¶ out larger and larger loans to buy more expensive books, to get less education engendered ¶ by fewer teachers. This is capitalist efficiency. The surplus is efficiently transferred from ¶ one segment of the population to another, those at the top. The same goes for letting the ¶ market shape energy policy. Those arguing today for market intervention in the climate ¶ crisis often fail to mention that it is absolutely already the market shaping energy policy. ¶ This is precisely the problem. It is very efficient for the market to extract oil at bargain ¶ prices from countries without militaries to stop them. It is very efficient, in terms of ¶ profit, to have the most vulnerable in society pay the costs of energy production, and to ¶ keep polluting, all the while terrifying people that new energy developments might be ¶ their only chance of economic survival. Nevermind where the real money goes and what ¶ happens with the boom goes bust.

The current version of capitalist ideology, which absorbs energy scholars (and ¶ even environmental socialists) often unwittingly, was consciously shaped to co-opt the ¶ language of social movements seeking freedom from the yolk of capitalism and ¶ imperialism. It is no surprise that the market would co-opt green rhetoric today. ¶ Economists having the greatest ideological influence on political debates and social ¶ science today, the architects of neoliberal ideology, have sought to re-write the history of ¶ capitalist development as “the constitution of liberty,” and the basis of free society ¶ (Hayek 1960; Friedman 1962; Van Horn, Mirowski, and Stapleford, eds. 2011). There ¶ can be no acknowledgement of slavery, racism, sexism, or ecological destruction among ¶ other issues, because all of these undermine the basic thesis neoliberal writers actively ¶ promote as political ideology. To make their argument, these writers must present ¶ capitalism as raising all boats, color-blind, gender-neutral, and free of class coercion, the ¶ globalization of which results in a “flat,” happy world, even if it is hot (Friedman 2005, ¶ 2008). Unfortunately, these ideas dominate the political sphere, and contemporary ¶ notions of organizational, community, and national development. In academia, many ¶ “theorists celebrate the alleged leveling of social differences owing to globalization”¶ (Pellow 2007, 41). The blinders imposed by this view continue to infect energy studies¶ despite the work of critical energy scholars.

Spreading capitalism thus becomes the solution for poverty associated with ¶ inequalities caused by oppression based on race, class, gender, and position in the world ¶ system, as well as the solution to environmental and energy crises. This is the basic ¶ modernization thesis. The Ecological Modernization Reader (Mol, Sonnenfeld, and ¶ Spaargaren 2009) presents these systematized views regarding the environmental crisis, ¶ which are increasingly influential in environmental sociology. York and Rosa (2003) and ¶ Foster (2012) have pointed out the empirical, theoretical, and philosophical roots of, and ¶ problems associated with this perspective as a basis for understanding ecological and ¶ social crises and solutions. But, we can expect this view to persist as long as social ¶ relations remain intact because the logic of modernization is seductive precisely because ¶ it is the logic of capitalism (Foster 1999b, 2002, 2009, 2012). The processes of ¶ capitalism, including its ideological developments, are the “background conditions” in ¶ which those integrated into the market economy live, as fish swim in water, they are the ¶ “**social gravity**” we might naturally feel is right, but don’t necessarily see, as much a part ¶ of our lives as the air we breathe (York and Clark 2006).

In contrast to the modernization thesis, environmental justice scholars, among ¶ other critical theorists and activists have sought to expose the mythological basis of ¶ neoliberalism and transcend the system. The work of environmental justice scholars, ¶ feminist ecologists, and ecological rift theorists, marshaling the empirical evidence, ¶ represent powerful critiques of the modernization thesis. Taken together with the insights ¶ in existing critical work on energy, they provide an alternative approach to energy that¶ **belies the notion that “there is no alternative.”** They share a common commitment, as ¶ social scientists and activists, to reality. Part of this reality is that “actual class and racial ¶ inequalities around the global and between North and South have only worsened in the ¶ past half-century—the same period during which the late modern state of capitalism took ¶ hold” (Pellow 2007, 41). Despite views that we live in a post-racial society, (or one ¶ where “men are finished and women are taking over” [Sohn 2011]), in fact economic ¶ globalization has “seriously undermined the gains of the civil rights and labor movement ¶ and the general antiracist struggle in the United States and undercut the global benefits of ¶ the anticolonial struggles occurring throughout the global South” (Pellow 2007, 43). ¶ Moreover, economic globalization and the intensified spread of ecological destruction ¶ “are intimately linked because the TNCs [transnational corporations] themselves were¶ the ones creating and pushing both globalization and toxins on the world markets, ¶ facilitating greater control over nations, communities, human bodies, and the natural ¶ world itself”(43).

Today, neoliberal mythology has severely hindered the development of a wider ¶ environmental justice consciousness in the broader public, and amongst activists and ¶ academics. In energy studies this view is especially pronounced in the focus on ¶ technology, carbon markets, voluntary certification schemes, and alternative energies that ¶ basically allow business to continue as usual (Foster 2002, 9-25; Rogers 2010; Holleman ¶ 2012). The critical literature emerging from what I call an energy justice perspective in ¶ ecological rift theory, systems ecology, feminist and critical human ecology, and ¶ environmental justice scholarship has drawn out the social and ecological crises of the ¶ current energy regime. This is in contrast to too many well-intentioned scholars and ¶ activists who buy into the main tenets of the modernization thesis, and thus are reluctant ¶ to break with capitalism as a system, or worse, they promote it, ignoring or ignorant of ¶ the enormous costs. This has led to the view that our task as environmentalists is getting ¶ economics to “internalize the externalities,” to bring under the pricing system the work of ¶ natural systems and human services (labor). For energy this means carbon markets and ¶ trade in other forms of pollution and raising energy prices. While it is clear that as long as ¶ we have this system, goals should include wealth redistribution and businesses ¶ shouldering the costs of their polluting practices, long-term, internalizing more of the ¶ world in the market system is a total death strategy. The logic of the market is clear. An ¶ energy justice movement, with the intention of healing the ecological rift and ¶ transcending social injustice, on the other hand has as its base the goal of “externalizing ¶ the internalities.” This is an ecological and social imperative.

Understanding the nature of the current system, Daniel Yergin’s worse-than-nothing approach to energy is the logical response of capital. Carbon markets and the ¶ new biotech boom also make sense. If the point is accumulation, sources of profit must ¶ be found at every turn and crises represent especially ripe opportunities (Klein 2007). The ¶ problem today is not capitalism’s lack of response to the climate crisis, capital was never ¶ developed as a system geared toward ecological reproduction or meeting human needs. It ¶ is a system geared toward profit at all cost and can have no rational response. The ¶ problem is that capitalism organizes so many of our productive activities in the first ¶ place. The sooner this is recognized, **the sooner we can start thinking of real alternatives**, ¶ and understand ourselves as subjects, not merely objects of the system, as protagonists of ¶ our own future. We can move beyond playing the passive consumers of the next product¶ capitalism has on offer, green or otherwise, packaged as a solution to energy crises. ¶ Examples like the carbon market schemes, or Daniel Yergin’s view of what constitutes ¶ energy revolution, make clear “that **there’s no way we can just subcontract** our ¶ **environmental conscience to** the **new** breed of **green marketers**” (McKibben 2010).

Energy and social inequality, the challenges of our generation

The social and ecological costs of our energy regime today are clear, though the ¶ ways these are both the result of and exacerbate social inequality and oppression are often ¶ misunderstood or ignored. While the future is unwritten, projections, if business ¶ continues as usual, indicate environmental and social catastrophe with much of the ¶ damage irreversible. Without significant social change, we should prepare for, among ¶ other depredations, increased warfare to secure energy resources to meet increased ¶ demand. The most recent British Ministry of Defence Strategic Trends report suggests ¶ that nations will increasingly use energy security “to challenge conventional ¶ interpretations on the legality of the use of force” (108). Environmentally and socially ¶ destructive energy sectors are projected to grow the next thirty years, such as nuclear ¶ energy and biofuel, while expected fossil fuel demand also goes only one way, up: ¶ Global Energy use has approximately doubled over the last ¶ 30 years and, by 2040, demand is likely to grow by more ¶ than half again. Despite concerns over climate change, ¶ demand is likely to remain positively correlated to ¶ economic growth with fossil fuels, meeting more than 80% ¶ of this increase. Urban areas will be responsible for over ¶ 75% of total demand. (Strategic Trends, 106) ¶ Even a U.S. government official has recognized publicly that “our patterns of energy use ¶ create geopolitical instability. The ways we use energy are disrupting the climate system ¶ and threaten terrifying disruptions in decades to come” (Sandalow 2009).

These realities only partially illustrate energy’s extensive contribution to what K. ¶ William Kapp (1950) referred to as capitalism’s systemic “unpaid costs.” As Anderson ¶ (1976) put it: “the growth society operates as if it had tunnel vision and nearsightedness; ¶ the accumulation of capital is pursued without regard for the side-effects or for longrange consequences, leaving to nature and the larger community these uncalculated ¶ costs” (140). Prefiguring contemporary discussions and movement framing, Anderson ¶ referred to these accumulated unpaid costs, or externalities as “the ecological debt,” the ¶ result of the exploitation of both nature and humans for the sake of economic growth at ¶ all costs (142-43), undermining the natural and social conditions of production.

As indicated previously, with energy demand expected only to increase as the ¶ economy expands, the “unpaid costs” associated with its extraction and use will continue ¶ to accumulate, but on a scale heretofore unseen. The science is clear that if we do not ¶ severely curtail energy use, we will cross critical thresholds in the biosphere’s ability to ¶ recycle waste and regulate the earth’s temperature. The consequences of crossing such ¶ **planetary boundaries** will be irreversible (Hansen 2009; Solomon, et al. 2009; Cullen ¶ 2010; Foster 2011).

This is a new juncture in humanity’s relation to the rest of nature. However, the ¶ costs of climate change, among other environmental crises generated by energy ¶ production and use, which is driven largely by economic growth, already are visited upon ¶ communities and other social groups in a dramatically unequal way––this we may ¶ understand as a defining feature of energy injustice. This social inequality, indeed, is a ¶ necessary feature of capitalism, making human exploitation and the assault on the ¶ environment possible, and energy injustice inevitable in the current system:

“Environmental deterioration will continue so long as there is a class system, since the ¶ profits of environmental neglect accrue primarily to one class whereas the costs are borne ¶ primarily by another” (Anderson 1976, 139). Scholars studying the ecological and social ¶ rift of capitalism, including those working on environmental racism and feminist ecology, ¶ have expanded the understanding of how these processes are gendered and racialized. ¶ Work on unequal ecological exchange amply has demonstrated that inequality between ¶ nations and regions also increases the burdens of environmental injustice. Studies from ¶ all of these perspectives have drawn out inequalities embedded in our current patterns of ¶ energy decision-making, extraction, use, and waste disposal, documenting energy ¶ injustice through various theoretical lenses.

#### Vote neg to eschew neoliberal frameworks—they’re unsustainable and insulate decisionmaking from deliberation and alternative assumptions needed to solve

**Adaman and Madra** **2012** – \*economic professor at Bogazici University in Istanbul, \*\*PhD from UMass-Amherst, economics professor (Fikret and Yahya, Bogazici University, “Understanding Neoliberalism as Economization: The Case of the Ecology”, http://www.econ.boun.edu.tr/content/wp/EC2012\_04.pdf, WEA)

The reduction of ecological valuation through a market mechanism (or various techniques) to a ¶ mere aggregation of individual subjective valuations—which is the main premise of neoliberal ¶ ideology—may be inappropriate for complex and uncertain phenomena ridden with ¶ incommensurabilities and inter- and intra-generational distributional conflicts, such as global ¶ warming, where individual valuations will have clear implications for all living beings. Indeed, ¶ in making decisions with substantial consequences pertaining to our current life as well as our ¶ future (such as the overall growth rate, distributional trajectories, technological path, ¶ consumption habits, risk attitude [say, vis-à-vis nuclear energy]), the market response or the ¶ aggregation of individuals’ valuation through a set of available techniques (e.g., the contingent ¶ valuation) may substantially differ from what could be derived through **collective deliberation** ¶ and negotiation of various stakeholders including the scientific community (see, e.g., ¶ Özkaynak, Adaman and Devine, 2012). This criticism applies not only to neoliberal positions ¶ that favor the current unequal distribution of power but also to the Post-Walrasian one which ¶ although concerned with distributional issues keeps relying on individualist ontologies of ¶ calculative and calculable agency. Indeed, there is a growing theoretical and applied literature ¶ arguing that in incommensurable cases, where all relevant aspects cannot be captured in a single ¶ dimension (such as those derived from monetary cost-benefit analyses), a multi-criteria ¶ methodology would seem better placed, as it will be possible to involve not only economic but ¶ also political, moral, scientific and cultural inputs from a variety of stakeholders (see, e.g., ¶ Martinez-Alier, Munda and O’Neil, 1999; Munda, 2008). The key promise of the multicriteria decision-making tool and other similar participatory and deliberatory dispositifs is that ¶ **rather than finding a “solution”** to a conflictual decision, they shed light on the multifaceted¶ dimensions of the problem at hand and thus facilitate the consensus-building process from ¶ below (see, e.g., Adaman, 2012). In this regard, they constitute a formidable path to be ¶ explored as an alternative to the surreptitiously normative neoliberal governmental dispositifs, ¶ designed by experts from above, under the assumption that all actors are calculative and ¶ calculable.

The current indiscriminate application of neoliberal policies over the entire scope of the social ¶ field has brought about such political, economic, cultural and ecological devastation that any ¶ type of reform suggestion along the line to halt this process is met with much welcoming by ¶ many of us—even if some of them are still **acting as if economic incentives are the only viable** ¶ **policy tool** in town. Consider the case of carbon markets, for example, where the cap is ¶ decided either through a scientific body or through aggregating individuals’ preferences. The ¶ fact of the matter is that, far from addressing the inefficiencies that emanate from opportunistic ¶ and manipulative activities, these mechanisms are vulnerable precisely because they end up¶ soliciting manipulative, predatory, and rent-seeking behavior (**because they are** **designed** to ¶ function **under such behavioral assumptions** in the first place). In other words, these solutions ¶ subject a commons such as global climate into the economic logic of markets and ¶ “performatively” turn it into an object of strategic-calculative logic (MacKenzie, Muniesa and ¶ Siu, 2007; Çalışkan and Callon, 2009; MacKenzie, 2009; Çalışkan and Callon, 2010; see also ¶ Spash, 2011). Consider, furthermore, the case of price-per-bag policies. Laboratory ¶ experiments and anthropological evidence both suggest that charging a price for some activity ¶ that should in fact be treated as a duty or a commitment may well create perverse results (see, ¶ e.g., Campbell, 1998; Bowles and Hwang, 2008). Monetizing the pollution-generating activity ¶ instead of limiting the use of plastic bags (along with an awareness program) may well result in ¶ an increase of the unwanted activity. Similarly, while nationalization is the trend in areas of ¶ natural resource extraction and energy production, many continue to argue for privatization ¶ and private-public partnerships instead. Nevertheless, the problem with the private versus ¶ public dichotomy, given our reading of the contemporary state as an agent of economization, is ¶ precisely that both forms, to the extent that they are informed by the different variants of ¶ neoliberal reason, serve to isolate these critical areas from the deliberations and political ¶ demands of various stakeholders and the general public, **limiting the only channels for** ¶ **communication** available to them to the price (or price-like) mechanisms. However, perhaps ¶ most importantly, neither can be immune towards all sorts of rent-seeking activities that occur ¶ behind the close doors of the technocracy that operates in the area where state shades into ¶ market in the various forms of dispositifs.

Needless to say, economic activities that generate pollution and consume energy are not recent ¶ phenomena that are exclusive to what is now increasingly being called the neoliberal era. If ¶ anything, postwar Keynesian developmentalism was possible precisely because of the ¶ availability of cheap oil, and is responsible for an enormous amount of environmental pollution ¶ and ecological degradation (Mitchell, 2011). In this sense, it would be wrong to present ¶ neoliberal as being the only responsible mode of governmentality for the dual crises of climate ¶ change and natural resource depletion. Yet, this does not change the fact that the neoliberal ¶ reason (in its free-market and mechanism-design variations) is pushing its agenda in an era ¶ where both of these crises are reaching catastrophic levels, and it is highly questionable whether ¶ neoliberal methods of handling the environmental pollution and the extraction crisis will be¶ capable of addressing long-term concerns.

### Power Projection

#### Zero chance of supply constraints affecting the military---and fuel-switching doesn’t solve

Daniel Sarewitz 12, Co-Director, Consortium for Science, Policy and Outcomes, Arizona State University; and Samuel Thernstrom Senior Climate Policy Advisor, Clean Air Task Force, March 2012, “Energy Innovation at the Department of Defense: Assessing the Opportunities,” http://bipartisanpolicy.org/sites/default/files/Energy%20Innovation%20at%20DoD.pdf

Liquid fuels are indispensable for the U.S. military. Nuclear reactors power submarines and aircraft carriers; otherwise the Navy’s ships run on petroleum. So do all types of aircraft, trucks, and combat vehicles. Military installations buy electrical power, when they can, from local utilities, but diesel generators provide essential backup—and are the main power source at forward bases that lack grid connections. Direct consumption of petroleum accounted for more than three-quarters of DoD’s energy use in fiscal 2010, costing $13.4 billion.11

Even so, given adequate forward planning, DoD has little reason to fear constraints on supply of petroleum-based fuels for several decades, perhaps many. A tightening international oil market, resulting in continuing price increases, would pose greater difficulties for other segments of the U.S. economy and society, and for other countries. DoD’s expenditures on fuel may seem large, but should be viewed in the context of other routine expenditures. Even for the Air Force, the principal consumer with its fleet of nearly 6,000 planes, fuel accounts for only around one-fifth of operations and maintenance costs. 12 In Afghanistan and Iraq, fuel and water have made up 70 percent (by weight) of the supplies delivered to forward areas. 13 Transport convoys have drawn frequent and deadly attacks, but the only way to reduce risks, casualties, and delivery costs is to cut consumption (of water as well as fuel)—not something that alternative fuels can promise. Alternative fuels might have somewhat lower energy densities than petroleum (less energy content per gallon or per pound), meaning somewhat more fuel would have to be burned for the same power output, but not higher (by any significant amount). Indeed, alternative fuels cannot promise performance advantages of any sort.

#### No military fuel cutoffs and costs won’t undermine power projection

John Alic 12, directed studies on international competitiveness and technology policy at the Congressional Office of Technology Assessment, adjunct at the Johns Hopkins School of Advanced International Studies, March 2012, “Defense Department Energy Innovation: Three Cases,” in Energy Innovation at the Department of Defense: Assessing the Opportunities, http://bipartisanpolicy.org/sites/default/files/Energy%20Innovation%20at%20DoD.pdf

Over 80 percent of the petroleum purchased and consumed by the U.S. military consists of jet fuel designated JP-5 or JP-8; diesel fuel makes up nearly all the rest. 46 By volume, recent purchases peaked in fiscal 2003 with the invasion of Iraq, then declined even as rising oil prices pushed expenditures upward: fuel doubled as a share of DoD outlays, from 1.5 percent to 3 percent, between fiscal years 2004 and 2008. Consumption did not change much, but purchases rose from $7 billion (2004) to $18 billion (2008). Prices then fell back somewhat, but in 2011 DoD paid more for jet fuel just as motorists did for gasoline. Even so, the Energy Information Administration (EIA, part of the Energy Department) predicts relatively flat oil prices over the next quarter century, with inflation-adjusted prices in the range of $120 per barrel.47

Oil prices respond almost instantaneously to international political events (e.g., the threat of supply constrictions) and to economic fluctuations affecting demand. A small number of big suppliers—state-owned or state-controlled enterprises inside and outside the Organization of Petroleum Exporting Countries (OPEC), plus a handful of private multinationals—dominate production. In recent years, most have appeared to pump oil at or near capacity most of the time. By most indications, Saudi Arabia alone retains the ability to affect prices by raising or lowering output. Otherwise suppliers must act together to set prices, and in recent years that has come to seem mostly a theoretical possibility. Periodic fears of disruption linked with political unrest or war have had greater effects, and sharp swings in prices have been common, affected also by asynchronous demand variations in major markets. Price increases have been moderated by declining energy intensity (energy consumption relative to economic output) in most parts of the world. This is the principal reason EIA does not expect the long-term trend to be sharply upward.

Acknowledging the more dramatic scenarios some analysts put forward, there seems little in what is actually known about world oil reserves and the workings of the international market to suggest that the U.S. military faces either intolerably burdensome fuel costs or supply risks in the foreseeable future. DoD buys fuel alongside other purchasers. It is a big customer, but not big enough to affect prices. Long-distance transport of crude oil and refined products is routine and inexpensive. So long as the world market remains effectively integrated, it would take a massive injection of substitutable alternatives to affect prices. Private investors, absent proven capability to produce alternatives in substantial quantities at competitive costs—or a package of subsidies such as those for domestic ethanol, perhaps including binding price guarantees—will find little reason to increase production capacity rapidly. Fuel is fuel, and as output of substitutable alternatives builds it will simply flow into the international market at prices little different from those for other refined petroleum products.

Given U.S. dependence on imported oil, it is reliability of supply, rather than pricing, that might seem the larger issue. But again, the market is international; indeed, DoD buys much of its fuel abroad—in recent years, something like half (box 2.3). Innovations—perhaps sustainable biofuels—would, once proven, migrate to the lowest-cost-production locations, many of them presumably overseas. (The United States has no monopoly on sunshine and arable land.) DoD and the government might support innovation and subsidize production, but it would be difficult to wall off domestic output without some compelling national security rationale. Wartime supply interruptions might be accepted as justifying government ownership and reservation of output for the military, but not indefinite fears of future interruptions. Private ownership coupled with domestic production and export restrictions would more than likely be seen as contravening bedrock principles of U.S. foreign economic policy, which since World War II has been based on borders nominally open to trade.

#### Normal market barriers take out the aff—DOD makes it worse

**Marqusee**, executive director – Strategic Environmental Research and Development Program @ DOD, ‘**12**

(Jeffrey, “Military Installations and Energy Technology Innovations,” in Energy Innovation at the Department of Defense: Assessing the Opportunities, March)

Decisions on implementing these technologies will be made in a distributed sense and involve tens of thousands of individual decision makers if they are ever to reach large-scale deployment. These are the energy technologies that DoD installations will be buying, either directly through appropriated funds or in partnership with third-party financing through mechanisms such as Energy Saving Performance Contracts (ESPCs) or Power Purchase Agreements (PPAs). In the DOE taxonomy shown above, these distributed installation energy technologies cover the demand space on building and industrial efficiency, portions of the supply space for clean electricity when restricted to distributed generation scale, and a critical portion in the middle where microgrids and their relationship to energy storage and electric vehicles reside. There is an extensive literature on the impediments to commercialization of these emerging energy technologies for the building infrastructure market.82 A key impediment (and one found not just in the building market) is that energy is a cost of doing business, and thus rarely the prime mission of the enterprise or a priority for decision makers. In contrast to sectors such as information technology and biotechnology, where advanced technologies often provide the end customer with a new capability or the ability to create a new business, improvements in energy technology typically just lower the cost of an already relatively low-cost commodity (electricity). As a result, the market for new technology is highly price sensitive, and life-cycle costs are sensitive to the operational efficiency of the technology, to issues of maintenance, and to the estimated lifetime of the component. Thus, a first user of a new energy technology bears significantly more risk while getting the same return as subsequent users. A second impediment is the slow pace of technological change in the U.S. building sector: it takes years, if not decades, for new products to achieve widespread use. One reason for this is that many firms in the industry are small; they lack the manpower to do research on new products, and they have limited ability to absorb the financial risks that innovation entails. A third impediment to the widespread deployment of new technologies arises from the fragmented or distributed nature of the market; decisions are usually made at the individual building level, based on the perceived return on investment for a specific project. The structural nature of decision making and ownership can be a significant obstacle to technological innovation in the commercial market: n The entity that bears the up-front capital costs is often not the same as the one that reaps the operation and management savings (this is known as the “split incentives” or “principal agent” problem). n Key decision makers (e.g., architecture and engineering firms) face the liabilities associated with operational failure but do not share in the potential savings, creating an incentive to prefer reliability over innovation. n Financing mechanisms for both energy efficiency (by energy service companies using an ESPC) and distributed and renewable energy generation (through PPA and the associated financing entities) require high confidence in the long-term (decade-plus) performance of the technology, and thus investors are unwilling to put capital at risk on new technologies. Other significant barriers to innovation include a lack of information, which results in high transactional costs, and an inability to properly project future savings. As the National Academy of Sciences has pointed out, the lack of “evidence based” data inhibits making an appropriate business case for deployment.83 The return on the capital investment is often in terms of avoided future costs. Given the limited visibility of those costs when design decisions are being made, it is often hard to properly account for them or see the return. This is further exacerbated by real and perceived discount rates that can lead to suboptimal investment decisions. Finally, the lack of significant operational testing until products are deployed severely limits the rapid and complete development of new energy technologies. The impact of real-world conditions such as building operations, variable loads, human interactions, and so forth makes it very difficult to optimize technologies, and specifically inhibits **any radical departure** from standard practice. These barriers are particularly problematic for new energy efficiency technologies in the building retrofit market, which is where DoD has the greatest interest. In addition to these barriers, which are common across DoD and the commercial market, DoD has some unique operational requirements (security and information assurance issues) that create other barriers.

#### No China Naval threat

**Desker and Bitzinger 2008** \*Senior Fellow at the S. Rajaratnam School of International Studies, \*\*Dean of the S. Rajaratnam School of International Studies and Director of the Institute of Defense and Strategic Studies, Nanyang Technological University, Singapore (Richard and Barry, Survival 50:6, "Why East Asian War is Unlikely", pages 105-28, EBSCO, WEA)

Overall, most Western assessments agree that the PLA has made considerable progress over the past decade in adding new weapons to its arsenal, and that China has noticeably improved its military capabilities in several specific areas – particularly missile attack, power projection over sea and in the air, and information warfare. Most predict that Chinese military power relative to its likely competitors in the Asia-Pacific region – especially Taiwan – and the United States will continue to increase significantly over the next ten to 20 years. There are, however, some striking differences of opinion when it comes to interpreting the significance of these hardware developments. Many Western analysts assert that the PLA continues to suffer from considerable deficiencies and weaknesses that limit its ability to constitute a major military threat: in spite of all its efforts, China is still at least two decades behind the United States in terms of defence capabilities and technology. In particular, the PLA still lacks the logistical and lift capacity – both by sea and by air – for projecting force much beyond its borders. China also lags far behind the West in areas such as C4I architectures and surveillance and reconnaissance capabilities. Some therefore argue that China’s current rearmament programme is an incremental, long-term modernisation process that must be understood in the context of competing force-modernisation activities taking place among China’s likely rivals.

Moreover, **what the PLA has been engaged in over the past 10–15 years may not really be a revolution in military affairs at all.** First, there is very little evidence that the Chinese military is engaged in an revoutionary overhaul of its organisational or institutional structures. According to Jane’s Defence Weekly, the PLA, despite its emphasis on the ‘importance of information technology and knowledge-based warfare on the battlefield ... has yet to promulgate a definitive military doctrine to guide the development of capabilities and operations in this area’.38 Most of China’s ground forces remain traditional infantry units, hobbled by a shortage of rapid-mobility assets such as helicopters, airlift or amphibious lift.39 The PLA’s highly hierarchical and top-down command structure and its inter-service compartmentalisation does not seem to have changed, and even the Pentagon acknowledges the PLA’s deficiencies when it comes to things like interoperability.40

Secondly, while the Chinese military is certainly acquiring new and better equipment, little of it could be construed as particularly revolutionary, or be seen as leapfrogging a generation of weapons development. For example, using shortand medium-range ballistic missiles as precision-attack systems may be a unique approach, but in China’s case this may be more a matter of making a virtue out of a necessity – the PLA simply lacks sufficient numbers of other types of precision-guided munitions, particularly for land attack. In addition, systems such as the J-10 fighter jet, the Song-class diesel-electric submarine and the Type-52C Luyang II-class destroyer (which is equipped with an Aegis-type air-defence radar), while advanced for the PLA, are basically 1980s-era weaponry, technologically speaking. The J-10, for instance,is operationally comparable to the US F-16C, which first entered service in the mid 1980s. Even the equipment the Chinese have acquired from Russia (Su-27 fighters, Sovremennyy-class destroyers, Kilo-class submarines, and S-300 surface-to-air missiles) – arguably the sharpest edges of the PLA spear – are hardly cutting-edge, transformational weapons systems. Moreover, most Chinese weapons systems coming online today were developed more or less sequentially – that is, following traditional patterns of incremental research and development. For example, Chinese fighter-aircraft development has moved in a fairly routine fashion from second-generation (J-7/ MiG-21) to third-generation (J-8) to fourth-generation (J-10) systems – acknowledging, of course, the 20-year period of near-total absence of new research from the mid 1960s to the mid 1980s. Overall, therefore, Chinese military transformation looks fairly mundane, consisting mostly of buying new platforms, such as fighter jets, warships, submarines, missile systems, tanks and other weapons.

Thirdly, **modernisation does not seem to be accelerating**. Indeed, over the past few years the pace of PLA arms acquisitions has declined in some areas. The Chinese have not laid down a new destroyer in more than three years. In 2006 and 2007, Chinese overseas arms purchases were worth, respectively, $100 million and $150m, a far cry from the $2.8bn-worth of foreign weapons systems it bought in 2005. The most recent edition of the US Defense Department’s annual report on Chinese military power shows that, while the PLA has made considerable progress in incorporating ‘modern’ weapons systems into its forces, as of 2007, 70% of its surface combatants, 60% of it submarine force and 80% of its fighter jets were still considered ‘old’.41 Clearly, Chinese military modernisation has a long way to go.

#### Their Naval power impact is about generic presence—no internal link between hindrances in the littorals and broader withdrawal.

#### Our carriers would fuck them up

**Henderson 2009** (Bruce, “China’s “Kill Weapon” – Don’t Make Me Laugh”, <http://andstillipersist.com/2009/03/chinas-kill-weapon-dont-make-me-laugh/>, WEA)

The Dongfeng (East Wind) 21 is a land based medium range ballistic missile. It is a two stage, solid fuel rocket. By using solid fuel, it is easier to set up and launch as it does not require cryogenic cooling or propellents. China likes to deploy these on mobile launchers that they can easily move around to hide them from anyone who might want to make sure they never launch them.

What the US Naval Institute is implying, without spelling it out, is that China has claimed that they have developed a very accurate warhead that can be targeted against ships at sea, a land-based anti-ship ballistic missile based on the DF-21. This warhead would be nuclear, and with a big enough yield, the Chinese could “Kill” a US carrier. While it is true that if you can toss a live nuke close enough to a carrier, you can sink it, the premise of the entire write up **is so far from credible as to be a joke**.

One has to wonder how and why this article surfaced. Is the Navy or it’s supporters attempting to stoke support for development money for the Aegis systems? There was at one time a proposal to enhance Aegis to attempt terminal intercept capability. Or is it just time to once again realize that China is steadily moving to expand its sphere of influence in Asia?

Make no mistake, the events that would lead to a DF-21 fired at a carrier battle group would be well down the road of a full fledged and escalating war with China, and would signal the beginning of a nuclear exchange that would see hundreds of millions die, mostly in China. While it is not public knowledge, China knows that the location of their missiles, command and control and launch authorities have been infiltrated, measured to within the inch, and can be targeted within seconds should anyone ever be so stupid as to use a DF-21 against US assets. The chances of this ever happening are so close to zero as to not even merit consideration, let alone the level of concern [Raymond Pritchett](http://blog.usni.org/?p=1964) has raised.

#### This is offense—the plan destroys regional partnerships—cooperation exists now because we lack our own capabilities

**Brick 6/11**/2012 – NYT reporter (Michael, CNAS, “Out in the Cold”, http://www.cnas.org/node/8604)

**Power projection** can lead to misunderstandings, experts say, especially in a zone where conditions are harsh, communication is impaired and competing claims are made on territory expected to hold vast natural resources. And nerves have been on edge since 2007, when Russia made the symbolic but no less notorious gesture of planting its flag in the seabed below the North Pole. At the highest levels of government, officially at least, the U.S. has turned a blind eye. The current global strategic policy statement, “Priorities for the 21st Century Defense,” signed by President Obama on Jan. 3, makes no mention of the Arctic. “The Navy has always been touted as a dominant strength; it’s not dominant in the Arctic,” said William Rogers, a researcher at the Center for a New American Security in Washington. “We’re getting to a place where we need to start talking about what we want to do in the Arctic, before we start getting backed into having to make decisions from a position of weakness.” The strategic importance has taken decades to emerge. In the early days of the Cold War, military strategists viewed the region as little more than a flyover zone for intercontinental ballistic missiles. By the 1980s, some advanced nuclear submarines plied the frozen seas. Since then, global warming — an effect which has raised temperatures at the poles more than other regions — has reduced sea-ice cover in the Arctic dramatically, opening new waters at rates outpacing scientific projections. Suddenly, new shipping routes promise manufacturers a 4,000-mile head start on the global economy. According to the U.S. Geological Survey, 13 percent of the world’s undiscovered oil may rest under the Arctic seas. And mainstream tourism outfits such as Royal Caribbean have started scheduling regular cruises to the land of the midnight sun. In their official pronouncements, the governments of the Arctic Rim — Russia, Canada, Norway, Denmark and the U.S. — tend to stress international cooperation on environmental preservation and rescue operations. But some of their actions speak more forcefully. Russia started flying regular bomber missions over the region in 2007, following up with its first Arctic special forces brigade, based on the Kola Peninsula. Its Northern Fleet includes nuclear submarines, an aircraft carrier and four new helicopter-carrying amphibious assault ships. Canada, which has 15 warships capable of Arctic operations, is spending $100 million on a five-year effort to upgrade a coast guard base in the region with naval facilities. Denmark is expanding its armed frigate fleet. Norway is shifting forces to the north. “Canada, Denmark and Russia have recently adopted foreign and defence policies that have put a special emphasis on the Arctic,” wrote Siemon Wezeman, a senior researcher at the Stockholm International Peace Research Institute, in a recent report. “They have strengthened their military presence in the Arctic or increased military capabilities for Arctic use and have presented plans for additional military strengthening.” Even China, despite its distance from the region, has started jockeying for position by applying for permanent observer status on the Arctic Council. In April, Premier Wen Jiabao visited Iceland, Sweden and Poland for talks reportedly including the energy reserves of unclaimed portions of the Arctic. American officials have started to discuss the region with a new sense of urgency compared to just three years ago, when Secretary of State Hillary Clinton, in an interview with Newsweek, called the Arctic “an area that we have to pay real attention to.” But experts say shaping a coherent policy has been hampered by the complex variety of American interests in the region: deterring nuclear threats, containing oil spills, conducting search and rescue operations, facilitating communication beyond the range of geosynchrous satellites, staging air support for conflict in East Asia and more. Last year, the U.S. Naval War College put its Arctic fleet through a war game, seeking strategies to mend gaps in the region. The results provided a glimpse of what full-scale military operations in the region might look like. “Our expectation is that the [U.S. Navy] is going to the Arctic to do something other than sit below decks and shoot missiles,” most likely some kind of sea-basing, one participant said in the report. “This means people are going to have to operate small craft and aircraft in extreme cold weather conditions and those connectors present the highest risk and most vulnerable points of failure.” Walter Berbrick, a professor at the war college, told The Daily that shrinking budgets and competing demands might force the hand of policy makers. “Perhaps **the most compelling reason** for U.S. maritime forces to strengthen its relationships with allies and partners in the region,” Berbrick said, “is because U.S. maritime forces are **inadequately prepared** to conduct sustained maritime operations in the Arctic.”

#### Russian cooperation now—no impact

Economist 2012 (The Economist Print Edition, June 16, 2012, <http://www.economist.com/node/21556797>)

Far from violent, the development of the Arctic is likely to be uncommonly harmonious, for three related reasons. One is the profit motive. The five Arctic littoral countries, Russia, the United States (US), Canada, Denmark and Norway, would sooner develop the resources they have than argue over those they do not have. A sign of this was an agreement between Russia and Norway last year to fix their maritime border in the Barents Sea, ending a decades-long dispute. The border area is probably rich in oil; both countries are now racing to get exploration started. Another spur to Arctic co-operation is the high cost of operating in the region. This is behind the Arctic Council’s first binding agreement, signed last year, to co-ordinate search-and-rescue efforts. Rival oil companies are also working together, on scientific research and mapping as well as on formal joint ventures. The third reason for peace is equally important: a strong reluctance among Arctic countries to give outsiders any excuse to intervene in the region’s affairs. An illustration is the stated willingness of all concerned to settle their biggest potential dispute, over their maritime frontiers, according to the international Law of the Sea (LOS). Even the United States accepts this, despite its dislike for treaties—though it has still not ratified the United Nations Convention on the Law of the Sea, an anomaly many of its leaders are keen to end.

No uniqueness for railguns—they have no card that the Navy sucks at shooting stuff now, just evidence that AWE would make it better. Last line of their card says “It may be the massive Zumwalt class.”

#### Strategic Petroleum Reserves and diminished oil imports solve

Styles, 12 [The Energy Collective, Can the US Military Afford More Biofuels?, May24th, <http://theenergycollective.com/node/85807>]

Consider the question of supply disruptions, for example.  US oil production looks set to [continue increasing and oil imports to keep falling](http://www.eia.gov/oiaf/aeo/tablebrowser/#release=EARLY2012&subject=0-EARLY2012&table=1-EARLY2012&region=0-0&cases=full2011-d020911a,early2012-d121011b), while we now enjoy a refining surplus that is supporting new product exports.  We also have a [Strategic Petroleum Reserve](http://fossil.energy.gov/programs/reserves/spr/spr-facts.html) that could replace up to half of our [net crude oil imports](http://www.eia.gov/dnav/pet/pet_move_neti_a_epc0_IMN_mbblpd_a.htm) for up to 5 months, or a smaller disruption for much longer.  As a result of these factors, it's become more difficult to envision a scenario in which an oil market event affected the military's access to fuels in a manner that the present renewable energy industry could alleviate.  And with the cost of most alternatives still above even today's elevated prices for oil and its products, the investment required to develop an alternative fuel industry capable of making a meaningful dent in the military's needs under such a scenario would be very substantial.  Should the military make that investment, should someone else, or should it be left to the market?  And that doesn't begin to address the issues related to the non-renewable alternative fuels that would be enabled by Section 313, including synthetic fuels derived from natural gas or coal, though these would still be subject to the restriction that they must be price-competitive with conventional fuels.

#### No U.S. lashout

**Parent 11**—Assistant Professor of Political Science at the University of Miami—AND—Paul K. MacDonald, Assistant Professor of Political Science at Williams College (Joseph M., Spring 2011, *International Security*, Vol. 35, No. 4, http://www.mitpressjournals.org/doi/pdf/10.1162/ISEC\_a\_00034, RBatra)

With regard to militarized disputes, declining great powers demonstrate more caution and restraint in the use of force: they were involved in an average of 1.7 fewer militarized disputes in the five years following ordinal change compared with other great powers over similar periods.67 Declining great powers also initiated fewer militarized disputes, and their disputes tended to escalate to lower levels of hostility than the baseline category (see figure 2).68 These findings suggest the need for a fundamental revision to the pessimist’s argument regarding the war proneness of declining powers.69 Far from being more likely to lash out aggressively, declining states refrain from initiating and **escalating military disputes**. Nor do declining great powers appear more vulnerable to external predation than other great powers. This may be because external predators have great difficulty assessing the vulnerability of potential victims, or because retrenchment allows vulnerable powers to effectively recover from decline and **still deter potential challengers.**

#### No impact

**Goldstein 2011**, Professor IR at American University [Joshua S. Goldstein, Professor emeritus of international relations at American University, “Thing Again: War,” Sept/Oct 2011,

http://www.foreignpolicy.com/articles/2011/08/15/think\_again\_war?print=yes&hidecomments=yes&page=full]

Nor do shifts in the global balance of power doom us to a future of perpetual war. While some political scientists argue that an increasingly multipolar world is an increasingly volatile one -- that peace is best assured by the predominance of a single hegemonic power, namely the United States -- **recent geopolitical history** suggests otherwise. Relative U.S. power and worldwide conflict have **waned in tandem** over the past decade. The exceptions to the trend, Iraq and Afghanistan, have been lopsided wars waged by the hegemon, not challenges by up-and-coming new powers. The best precedent for today's emerging world order may be the 19th-century Concert of Europe, a collaboration of great powers that largely maintained the peace for a century until its breakdown and the bloodbath of World War I.

### Warming

#### No extinction – empirically denied

**Carter 11–** Robert, PhD, Adjuct Research Fellow, James Cook University, Craig Idso, PhD, Chairman at the Center for the Study of Carbon Dioxide and Global Change, Fred Singer, PhD, President of the Science and Environmental Policy Project, Susan Crockford, evolutionary biologist with a specialty in skeletal taxonomy , paleozoology and vertebrate evolution, Joseph D’Aleo, 30 years of experience in professional meteorology, former college professor of Meteorology at Lyndon State College, Indur Goklany, independent scholar, author, and co-editor of the Electronic Journal of Sustainable Development, Sherwood Idso, President of the Center for the Study of Carbon Dioxide and Global Change, Research Physicist with the US Department of Agriculture, Adjunct Professor in the Departments of Geology, Botany, and Microbiology at Arizona State University, Bachelor of Physics, Master of Science, and Doctor of Philosophy, all from the University of Minnesota, Madhav Khandekar, former research scientist from Environment Canada and is an expert reviewer for the IPCC 2007 Climate Change Panel, Anthony Lupo, Department Chair and Professor of Atmospheric Science at the University of Missouri, Willie Soon, astrophysicist at the Solar and Stellar Physics Division of the Harvard-Smithsonian Center for Astrophysics, Mitch Taylor (Canada) (March 8th, “[Surviving](file:///C:\Users\Marc\Desktop\Surviving) the Unpreceented Climate Change of the IPCC” <http://www.nipccreport.org/articles/2011/mar/8mar2011a5.html>) Jacome

On the other hand, they indicate that some biologists and climatologists have pointed out that "many of the predicted increases in climate have happened before, in terms of both magnitude and rate of change (e.g. Royer, 2008; Zachos *et al*., 2008), and yet biotic communities have remained remarkably resilient (Mayle and Power, 2008) and in some cases thrived (Svenning and Condit, 2008)." But they report that those who mention these things are often "placed in the 'climate-change denier' category," although the purpose for pointing out these facts is simply to present "a sound scientific basis for understanding biotic responses to the magnitudes and rates of climate change predicted for the future through using the vast data resource that we can exploit in fossil records." Going on to do just that, Willis *et al*. focus on "intervals in time in the fossil record when atmospheric CO2 concentrations increased up to 1200 ppm, temperatures in mid- to high-latitudes increased by greater than 4°C within 60 years, and sea levels rose by up to 3 m higher than present," describing studies of past biotic responses that indicate "the scale and impact of the magnitude and rate of such climate changes on biodiversity." And what emerges from those studies, as they describe it, "is evidence for rapid community turnover, migrations, development of novel ecosystems and thresholds from one stable ecosystem state to another." And, most importantly in this regard, they report "there is very little evidence for broad-scale extinctions due to a warming world." In concluding, the Norwegian, Swedish and UK researchers say that "based on such evidence we urge some caution in assuming broad-scale extinctions of species will occur due solely to climate changes of the magnitude and rate predicted for the next century," reiterating that "the fossil record indicates remarkable biotic resilience to wide amplitude fluctuations in climate.

#### Warming’s irreversible

**Solomon et al ‘10** Susan Solomon et. Al, Chemical Sciences Division, Earth System Research Laboratory, National Oceanic and Atmospheric Administration, Ph.D. in Climotology University of California, Berkeley, Nobel Peace Prize Winner, Chairman of the IPCC, Gian-Kasper Plattner, Deputy Head, Director of Science, Technical Support Unit Working Group I, Intergovernmental Panel on Climate Change Affiliated Scientist, Climate and Environmental Physics, Physics Institute, University of Bern, Switzerland, John S. Daniel, research scientist at the National Oceanic and Atmospheric Administration (NOAA), Ph.D. in physics from the University of Michigan, Ann Arbor, Todd J. Sanford, Cooperative Institute for Research in Environmental Science, University of Colorado Daniel M. Murphy, Chemical Sciences Division, Earth System Research Laboratory, National Oceanic and Atmospheric Administration, Boulder Gian-Kasper Plattner, Deputy Head, Director of Science, Technical Support Unit Working Group I, Intergovernmental Panel on Climate Change, Affiliated Scientist, Climate and Environmental Physics, Physics Institute, University of Bern, Switzerland Reto Knutti, Institute for Atmospheric and Climate Science, Eidgenössiche Technische Hochschule Zurich and Pierre Friedlingstein, Chair, Mathematical Modelling of Climate Systems, member of the Science Steering Committee of the Analysis Integration and Modeling of the Earth System (AIMES) programme of IGBP and of the Global Carbon Project (GCP) of the Earth System Science Partnership (ESSP) (Proceedings of the National Academy of the Sciences of the United States of America, "Persistence of climate changes due to a range of greenhouse gases", October 26, 2010 Vol 107.43: 18354-18359)

Carbon dioxide, methane, nitrous oxide, and other greenhouse gases increased over the course of the 20th century due to human activities. The human-caused increases in these gases are the primary forcing that accounts for much of the global warming of the past fifty years, with carbon dioxide being the most important single radiative forcing agent (1). Recent studies have shown that the human-caused warming linked to carbon dioxide is nearly irreversible for more than 1,000 y, even if emissions of the gas were to cease entirely (2–5). The importance of the ocean in taking up heat and slowing the response of the climate system to radiative forcing changes has been noted in many studies (e.g., refs. 6 and 7). The key role of the ocean’s thermal lag has also been highlighted by recent approaches to proposed metrics for comparing the warming of different greenhouse gases (8, 9). Among the observations attesting to the importance of these effects are those showing that climate changes caused by transient volcanic aerosol loading persist for more than 5 y (7, 10), and a portion can be expected to last more than a century in the ocean (11–13); clearly these signals persist far longer than the radiative forcing decay timescale of about 12–18 mo for the volcanic aerosol (14, 15). Thus the observed climate response to volcanic events suggests that some persistence of climate change should be expected even for quite short-lived radiative forcing perturbations. It follows that the climate changes induced by short-lived anthropogenic greenhouse gases such as methane or hydrofluorocarbons (HFCs) may not decrease in concert with decreases in concentration if the anthropogenic emissions of those gases were to be eliminated. In this paper, our primary goal is to show how different processes and timescales contribute to determining how long the climate changes due to various greenhouse gases could be expected to remain if anthropogenic emissions were to cease. Advances in modeling have led to improved AtmosphereOcean General Circulation Models (AOGCMs) as well as to Earth Models of Intermediate Complexity (EMICs). Although a detailed representation of the climate system changes on regional scales can only be provided by AOGCMs, the simpler EMICs have been shown to be useful, particularly to examine phenomena on a global average basis. In this work, we use the Bern 2.5CC EMIC (see Materials and Methods and SI Text), which has been extensively intercompared to other EMICs and to complex AOGCMs (3, 4). It should be noted that, although the Bern 2.5CC EMIC includes a representation of the surface and deep ocean, it does not include processes such as ice sheet losses or changes in the Earth’s albedo linked to evolution of vegetation. However, it is noteworthy that this EMIC, although parameterized and simplified, includes 14 levels in the ocean; further, its global ocean heat uptake and climate sensitivity are near the mean of available complex models, and its computed timescales for uptake of tracers into the ocean have been shown to compare well to observations (16). A recent study (17) explored the response of one AOGCM to a sudden stop of all forcing, and the Bern 2.5CC EMIC shows broad similarities in computed warming to that study (see Fig. S1), although there are also differences in detail. The climate sensitivity (which characterizes the long-term absolute warming response to a doubling of atmospheric carbon dioxide concentrations) is 3 °C for the model used here. Our results should be considered illustrative and exploratory rather than fully quantitative given the limitations of the EMIC and the uncertainties in climate sensitivity. Results One Illustrative Scenario to 2050. In the absence of mitigation policy, concentrations of the three major greenhouse gases, carbon dioxide, methane, and nitrous oxide can be expected to increase in this century. If emissions were to cease, anthropogenic CO2 would be removed from the atmosphere by a series of processes operating at different timescales (18). Over timescales of decades, both the land and upper ocean are important sinks. Over centuries to millennia, deep oceanic processes become dominant and are controlled by relatively well-understood physics and chemistry that provide broad consistency across models (see, for example, Fig. S2 showing how the removal of a pulse of carbon compares across a range of models). About 20% of the emitted anthropogenic carbon **remains in the atmosphere for** many **thousands of years** (with a range across models including the Bern 2.5CC model being about 19 4% at year 1000 after a pulse emission; see ref. 19), until much slower weathering processes affect the carbonate balance in the ocean (e.g., ref. 18). Models with stronger carbon/climate feedbacks than the one considered here could display larger and more persistent warmings due to both CO2 and non-CO2 greenhouse gases, through reduced land and ocean uptake of carbon in a warmer world. Here our focus is not on the strength of carbon/climate feedbacks that can lead to differences in the carbon concentration decay, but rather on the factors that control the climate response to a given decay. The removal processes of other anthropogenic gases including methane and nitrous oxide are much more simply described by exponential decay constants of about 10 and 114 y, respectively (1), due mainly to known chemical reactions in the atmosphere. In this illustrative study, we do not include the feedback of changes in methane upon its own lifetime (20). We also do not account for potential interactions between CO2 and other gases, such as the production of carbon dioxide from methane oxidation (21), or changes to the carbon cycle through, e.g., methane/ozone chemistry (22). Fig. 1 shows the computed future global warming contributions for carbon dioxide, methane, and nitrous oxide for a midrange scenario (23) of projected future anthropogenic emissions of these gases to 2050. Radiative forcings for all three of these gases, and their spectral overlaps, are represented in this work using the expressions assessed in ref. 24. In 2050, the anthropogenic emissions are stopped entirely for illustration purposes. The figure shows nearly irreversible warming for at least 1,000 y due to the imposed carbon dioxide increases, as in previous work. **All published studies to date**, which use multiple EMICs and one AOGCM, show largely irreversible warming due to future carbon dioxide increases (to within about 0.5 °C) on a timescale of at least 1,000 y (3–5, 25, 26). Fig. 1 shows that the calculated future warmings due to anthropogenic CH4 and N2O also persist notably longer than the lifetimes of these gases. The figure illustrates that emissions of key non-CO2 greenhouse gases such as CH4 or N2O could lead to warming that both temporarily exceeds a given stabilization target (e.g., 2 °C as proposed by the G8 group of nations and in the Copenhagen goals) and remains present longer than the gas lifetimes even if emissions were to cease. A number of recent studies have underscored the important point that reductions of non-CO2 greenhouse gas emissions are an approach that can indeed reverse some past climate changes (e.g., ref. 27). Understanding how quickly such reversal could happen and why is an important policy and science question. Fig. 1 implies that the use of policy measures to reduce emissions of short-lived gases will be less effective as a rapid climate mitigation strategy than would be thought if based only upon the gas lifetime. Fig. 2 illustrates the factors influencing the warming contributions of each gas for the test case in Fig. 1 in more detail, by showing normalized values (relative to one at their peaks) of the warming along with the radiative forcings and concentrations of CO2 , N2O, and CH4 . For example, about two-thirds of the calculated warming due to N2O is still present 114 y (one atmospheric lifetime) after emissions are halted, despite the fact that its excess concentration and associated radiative forcing at that time has dropped to about one-third of the peak value.

#### No impact to CO2 level rise

**Happer, Ph.D. in Physics, 11**—Chairman of the Board of Directors (GMI); Cyrus Fogg Brackett Professor of Physics, Princeton University, Ph.D. in Physics from Princeton (William, 23 May 2011, The Truth About Greenhouse Gases, http://www.marshall.org/article.php?id=953, RBatra)

Although human beings and many other animals would do well with no CO2 at all in the air, there is an upper limit that we can tolerate. Inhaling air with a concentration of a few percent, similar to the concentration of the air we exhale, hinders the diffusional exchange of CO2 between the blood and gas in the lung. Both the United States Navy (for submariners) and nasa (for astronauts) have performed extensive studies of human tolerance to CO2. As a result of these studies, the Navy recommends an upper limit of about 8000 ppm for cruises of ninety days, and nasa recommends an upper limit of 5000 ppm for missions of one thousand days, both assuming a total pressure of one atmosphere. Higher levels are acceptable for missions of only a few days.

We conclude that atmospheric CO2 levels should be above 150 ppm to avoid harming green plants and below about 5000 ppm to avoid harming people. That is a very wide range, and our atmosphere is much closer to the lower end than to the upper end. The current rate of burning fossil fuels adds about 2 ppm per year to the atmosphere, so that getting from the current level to 1000 ppm would take about 300 years—and 1000 ppm is still less than what most plants would prefer, and much less than either the nasa or the Navy limit for human beings.

Yet there are strident calls for immediately stopping further increases in CO2 levels and reducing the current level. As we have discussed, animals would not even notice a doubling of CO2 and plants would love it. The supposed reason for limiting it is to stop global warming—or, since the predicted warming has failed to be nearly as large as computer models forecast, to stop climate change. Climate change itself has been embarrassingly uneventful, so another rationale for reducing CO2 is now promoted: to stop the hypothetical increase of extreme climate events like hurricanes or tornados. But this does not necessarily follow. The frequency of extreme events has either not changed or has decreased in the 150 years that CO2 levels have increased from 270 to 390 ppm.

Let me turn to some of the problems the non-pollutant CO2 is supposed to cause. More CO2 is supposed to cause flooded cities, parched agriculture, tropical diseases in Alaska, etc., and even an epidemic of kidney stones. It does indeed cause some warming of our planet, and we should thank Providence for that, because without the greenhouse warming of CO2 and its more potent partners, water vapor and clouds, the earth would be too cold to sustain its current abundance of life.

Other things being equal, more CO2 will cause more warming. The question is how much warming, and whether the increased CO2 and the warming it causes will be good or bad for the planet.

The argument starts something like this. CO2 levels have increased from about 280 ppm to 390 ppm over the past 150 years or so, and the earth has warmed by about 0.8 degree Celsius during that time. Therefore the warming is due to CO2. But **correlation is not causation**. Roosters crow every morning at sunrise, but that does not mean the rooster caused the sun to rise. The sun will still rise on Monday if you decide to have the rooster for Sunday dinner.

There have been many warmings and coolings in the past when the CO2 levels did not change. A well-known example is the medieval warming, about the year 1000, when the Vikings settled Greenland (when it was green) and wine was exported from England. This warm period was followed by the “little ice age” when the Thames would frequently freeze over during the winter. **There is no evidence for significant increase of CO2 in the medieval warm period, nor for a significant decrease at the time of the subsequent little ice age.** Documented famines with millions of deaths occurred during the little ice age because the cold weather killed the crops. Since the end of the little ice age, the earth has been warming in fits and starts, and humanity’s quality of life has improved accordingly.

A rare case of good correlation between CO2 levels and temperature is provided by ice-core records of the cycles of glacial and interglacial periods of the last million years of so. But these records show that **changes in temperature preceded changes in CO2 levels, so that the levels were an effect of temperature changes**. This was probably due to outgassing of CO2 from the warming oceans and the reverse effect when they cooled.

#### Historical climate occilation proves its natural

**Carter 2-8–** Robert, PhD, Adjuct Research Fellow, James Cook University, Craig Idso, PhD, Chairman at the Center for the Study of Carbon Dioxide and Global Change, Fred Singer, PhD, President of the Science and Environmental Policy Project, Susan Crockford, evolutionary biologist with a specialty in skeletal taxonomy , paleozoology and vertebrate evolution, Joseph D’Aleo, 30 years of experience in professional meteorology, former college professor of Meteorology at Lyndon State College, Indur Goklany, independent scholar, author, and co-editor of the Electronic Journal of Sustainable Development, Sherwood Idso, President of the Center for the Study of Carbon Dioxide and Global Change, Research Physicist with the US Department of Agriculture, Adjunct Professor in the Departments of Geology, Botany, and Microbiology at Arizona State University, Bachelor of Physics, Master of Science, and Doctor of Philosophy, all from the University of Minnesota, Madhav Khandekar, former research scientist from Environment Canada and is an expert reviewer for the IPCC 2007 Climate Change Panel, Anthony Lupo, Department Chair and Professor of Atmospheric Science at the University of Missouri, Willie Soon, astrophysicist at the Solar and Stellar Physics Division of the Harvard-Smithsonian Center for Astrophysics, Mitch Taylor (Canada) (February 2012, “Eight Centuries of Climate Change in Northeast Spain” <http://www.nipccreport.org/articles/2012/feb/8feb2012a3.html>) Jacome

According to Morellon *et al*. (2011), "in the context of present-day global warming, there is increased interest in documenting climate variability during the last millennium," since "it is crucial to reconstruct pre-industrial conditions to discriminate anthropogenic components (i.e., greenhouse gases, land-use changes) from natural forcings (i.e., solar variability, volcanic emissions)."

Against this backdrop, Morellon *et al*. conducted a multi-proxy study of several short sediment cores they recovered from Lake Estanya (42°02'N, 0°32'E) in the Pre-Pyrenean Ranges of northeast Spain, which "provides a detailed record of the complex environmental, hydrological and anthropogenic interactions occurring in the area since medieval times." More specifically, they say that "the integration of sedimentary facies, elemental and isotopic geochemistry, and biological proxies (diatoms, chironomids and pollen), together with a robust chronological control, provided by AMS radiocarbon dating and 210Pb and 137Cs radiometric techniques, enabled precise reconstruction of the main phases of environmental change, associated with the Medieval Warm Period (MWP), the Little Ice Age (LIA) and the industrial era." And what did they find?

The thirteen researchers identified the MWP as occurring in their record from AD 1150 to 1300, noting that their pollen data reflect "warmer and drier conditions," in harmony with the higher temperatures of the Iberian Peninsula over the same time period that have been documented by Martinez-Cortizas *et al*. (1999), the higher temperatures of the Western Mediterranean region found by Taricco *et al*. (2008), and the global reconstructions of Crowley and Lowery (2000) and Osborn and Briffa (2006), which "clearly document warmer conditions from the twelfth to fourteenth centuries," which warmth, in the words of Morellon *et al*. is "likely related to increased solar irradiance (Bard *et al*., 2000), persistent La Niña-like tropical Pacific conditions, a warm phase of the Atlantic Multidecadal Oscillation, and a more frequent positive phase of the North Atlantic Oscillation (Seager *et al*., 2007)."

Following hard on the heels of the MWP, Morellon *et al*. note the occurrence of the LIA, which they recognize as occurring from AD 1300 to 1850. And here they report that, on the Iberian Peninsula, "lower temperatures (Martinez-Cortizas *et al*., 1999) characterize this period," which "coincided with colder North Atlantic (Bond *et al*., 2001) and Mediterranean sea surface temperatures (Taricco *et al*., 2008) and a phase of mountain glacier advance (Wanner *et al*., 2008)." And following the LIA they identify the transition period of AD 1850-2004 that takes the region into the Current Warm Period.

In discussing all three of these distinctive periods, they say that "a comparison of the main hydrological transitions during the last 800 years in Lake Estanya and solar irradiance (Bard *et al*., 2000) reveals that lower lake levels dominated during periods of enhanced solar activity (MWP and post-1850 AD) and higher lake levels during periods of diminished solar activity (LIA)." And *within* the LIA, they note that periods of higher lake levels or evidence of increased water balance occurred during the solar minima of Wolf (AD 1282-1342), Sporer (AD 1460-1550), Maunder (AD 1645-1715) and Dalton (AD 1790-1830).

In light of these several observations it would appear that the multi-centennial climate oscillation uncovered by Morellon *et al*. has been driven by a similar oscillation in solar activity, as well as by multi-decadal solar activity *fluctuations* superimposed upon that longer-period *oscillation*. And these relationships suggest that **there is no compelling need to attribute 20th-century global warming to the concomitant increase in the air's CO2 content**. **Natural variability appears** quite **capable of explaining it all.**

#### Algea Photosynthesis checks ocean acidification

**Carter 11** – Robert, PhD, Adjuct Research Fellow, James Cook University, Craig Idso, PhD, Chairman at the Center for the Study of Carbon Dioxide and Global Change, Fred Singer, PhD, President of the Science and Environmental Policy Project, Susan Crockford, evolutionary biologist with a specialty in skeletal taxonomy , paleozoology and vertebrate evolution, Joseph D’Aleo, 30 years of experience in professional meteorology, former college professor of Meteorology at Lyndon State College, Indur Goklany, independent scholar, author, and co-editor of the Electronic Journal of Sustainable Development, Sherwood Idso, President of the Center for the Study of Carbon Dioxide and Global Change, Research Physicist with the US Department of Agriculture, Adjunct Professor in the Departments of Geology, Botany, and Microbiology at Arizona State University, Bachelor of Physics, Master of Science, and Doctor of Philosophy, all from the University of Minnesota, Madhav Khandekar, former research scientist from Environment Canada and is an expert reviewer for the IPCC 2007 Climate Change Panel, Anthony Lupo, Department Chair and Professor of Atmospheric Science at the University of Missouri, Willie Soon, astrophysicist at the Solar and Stellar Physics Division of the Harvard-Smithsonian Center for Astrophysics, Mitch Taylor (Canada) [“Climate Change Reconsidered 2011 Interim Report,” September, Science and Environmental Policy Project, Center for the Study of Carbon Dioxide and Global Change, Published by The Heartland Institute]

Another reason to doubt Pelejero et al.‘s forecast of falling pH levels is that high rates of aquatic photosynthesis by marine micro- and macro-algae, which have been shown to be stimulated and maintained by high levels of atmospheric CO2—see, for example, Wu et al. (2008), Fu et al. (2008), and Egge et al. (2009)—can **dramatically increase the pH of marine bays, lagoons, and tidal pools** (Gnaiger et al., 1978; Santhanam et al., 1994; Macedo et al., 2001; Hansen, 2002; Middelboe and Hansen, 2007) and significantly increase the surface-water pH of areas as large as the North Sea (Brussaard et al., 1996). Thus it is logical to presume anything else that enhances marine photosynthesis, such as nutrient delivery to the waters of the world‘s coastal zones (i.e., eutrophication), may increase pH as well. Thinking along these lines, Borges and Gypens (2010) employed an idealized biogeochemical model of a river system (Billen et al., 2001) and a complex biogeochemical model describing carbon and nutrient cycles in the marine domain (Gypens et al., 2004) ―to investigate the decadal changes of seawater carbonate chemistry variables related to the increase of atmospheric CO2 and of nutrient delivery in the highly eutrophied Belgian coastal zone over the period 1951–1998.‖ The findings of the two researchers indicate, as they describe it, that ―the increase of primary production due to eutrophication could **counter the effects of ocean acidification** on surface water carbonate chemistry in coastal environments,‖ and ―changes in river nutrient delivery due to management regulation policies can lead to **stronger** **changes in carbonate chemistry than ocean acidification**,‖ as well as changes that are ―faster than those related solely to ocean acidification.‖ And to make these facts perfectly clear, they add, ―the response of carbonate chemistry to changes of nutrient delivery to the coastal zone is **stronger than ocean acidification**.‖

## 2nc

### topicality

The control F test

#### Big problem

FAA ‘11

Federal Aviation Administration, Federal Register/Vol. 76, No. 235/Wednesday, December 7, 2011/Proposed Rules Docket No.: FAA–2011–1279; Notice No. 11–07 Notification for Airborne Wind Energy Systems (AWES) <http://www.energykitesystems.net/FAA/FAA-2011-1279-0001.htm>, AM

Policy

Given the altitudes that these structures can operate and their

operating characteristics, the FAA concludes that they should be

studied and the potential impacts to the navigable airspace must be

identified and addressed. Presently, the FAA has an existing regulatory

framework that outlines standards for determining obstructions to air

navigation or navigational aids or facilities (see 14 CFR part 77). 14

CFR part 77 is utilized to evaluate the impact of wind turbines and

other forms of renewable energy on the navigable airspace. Therefore,

we conclude that any new forms of wind gathering devices would be

included in the Obstruction Evaluation Process, which is administered

under 14 CFR part 77.

Accordingly, the FAA announces that the provision of part 77 will

apply to temporary AWES proposals that will be used for data collection

purposes. The FAA finds that the provisions of 14 CFR part 77 can be

applied to these ``structures'' without the need to amend the

regulations. Permanent and operational AWES may be addressed in the

future upon further evaluations and risk assessments are performed. **The**

**purpose of this change** in policy **is to allow for the continued**

**development of this emerging technology** and to provide the FAA with

data regarding these devices so that the safety and integrity of the

NAS is maintained. Persons proposing to conduct temporary airborne

testing of AWES for data collection purposes must provide notice to the

FAA pursuant to 14 CFR 77.13(a)(1), which requires notice of any

construction or alternation of more than 200 feet above ground level.

#### The distinction is clear

CJ Veeraswami (Former Chief Justice of the Madras High Court, India) 1966 “T.M. Kannappa Mudaliar And Ors. vs The State Of Madras” Majority opinion,

http://www.indiankanoon.org/doc/838831/)

The collection of a toll or a tax for the use of a road or for the use of a bridge or for the use of an aerodrome is no barrier or burden or deterrent to traders, who, in their absence, may have to take a longer or less convenient or more expensive route. Such compensatory taxes are no hindrance to anybody's freedom so long as they remain reasonable; but they could of course, be converted into a hindrance to the freedom of trade. If the authorities concerned really wanted to hamper anybody's trade they could easily raise the amount of tax or toll to an amount which would be prohibitive or deterrent or create other impediments which instead of facilitating trade and commerce would hamper them. It is here that the contrast, between 'freedom' (Article 301) and 'restrictions' (Articles 302 and 304) clearly appears; that which in reality facilitates trade and commerce is not a restriction, and that which in reality hampers or burdens trade and commerce is a restriction. It is the reality or substance of the matter that has to be determined. It is not possible apriori to draw a dividing line between that which would really be a charge for a facility provided and that which would really be a deterrent to a trade, but the distinction, if it has to be drawn is real and clear. For the tax to become a prohibited tax it has to be a direct tax the effect of which is to hinder the movement part of trade. So long as a tax remains compensatory or regulatory it cannot operate as a hindrance. 12. Subba Rao, J. as he then was, concurring with Das, J. took substantially the same view and observed (at page 1430);: The word ' freedom ' is not capable of precise definition, but it can be stated what would infringe or detract from the said freedom. Before a particular law can be said to infringe the said freedom, it must be ascertained whether the impugned provision operates as a restriction impeding the free movement of trade or only as a regulation facilitating the same. Restrictions obstruct the freedom, whereas regulations promote it. Police regulations, though they may superficially appear to restrict the freedom of movement, in fact provide the necessary conditions for the free movement. Regulations such as provision for lighting, speed, good condition of vehicles, timings, rule of the road and similar others, really facilitate the freedom of movement rather than retard it. So too, licensing system with compensatory fees would not be restrictions but regulatory provisions;, for without it, the necessary lines of communication such as roads, waterways and airways, cannot effectively be maintained and the freedom declared may in practice turn out to be an empty one....It is for the Court in a given case to decide whether a provision purporting to regulate trade is in fact a restriction on freedom. The further observations as to what was meant by Restrictions in Article 302 are (at page 1433): But the more difficult question is, what does the word " restrictions " mean in Article 302? The dictionary meaning of the word " restrict" is "to confine, bound, limit." Therefore any limitations placed upon the freedom is a restriction on that freedom. But the limitation must be real, direct and immediate, but not fanciful, indirect or remote....Of all the doctrines evolved in my view, the doctrine of ' direct and immediate effect' on the freedom would be a reasonable solvent to the difficult situation that might arise under our Constitution. If a law, whatever may have been its source, directly and immediately affects the free movement of trade, it would be restriction on the said freedom. But a law which may have only indirect and remote repercussions on the said freedom cannot be considered to be a restriction on it. 13. Subba Rao, J., as he then was summed up his views in the following words (at page 1436): The foregoing discussions may be summarised in the following propositions : (1) Article 301 declares a right of free movement of trade without any obstructions by way of barriers, inter-State or intra-State or other impediments operating as such barriers. (2) The said freedom is not impeded, but on the other hand, promoted by regulations creating conditions for the free movement of trade, such as, police regulations, provision for services, maintenance of roads, provision for aerodromes, wharfs, etc. with or without compensation. (3) Parliament may by law impose restrictions on such freedom in the public interest and the said law can be made by virtue of any entry with respect whereof Parliament has power to make a law. (4) The State also, in exercise of its legislative power, may impose similar restrictions, subject to the two conditions laid down in Article 304 (b) and subject to the Proviso mentioned therein. (5) Neither Parliament nor the State Legislature can make a law giving preference to one State over another or making discrimination between one State and another, by virtue of any entry in the Lists, infringing the said freedom. (6) This ban is lifted in the case of Parliament for the purpose of dealing with situations arising out of scarcity of goods in any part of the territory of India and also in the case of a State under Article 304 (h), subject to the conditions mentioned therein. And (7) the State can impose a non-discriminatory tax on goods imported from other States or the Union territory to which similar goods manufactured or produced in the State are subject. 14. It is thus well established that regulatory provisions which do not directly or immediately impede or burden the free movement of trade, commerce and intercourse but provide or intend to provide facilities for trade, commerce and intercourse are not restrictions within the meaning of Part XIII and are compatible with the freedom of trade declared by Article 301. Atiabari Tea Co., Ltd. v. State of Assam , and Automobile Transport Ltd. v. State of Rajasthan , are both cases of imposition of tax. The first was concerned with the Assam Taxation (on Goods carried by Roads or Inland Waterways) Act, 1954,, which was successfully attacked on the ground that it violated Article 301 and was not saved by Article 304 (b). The Act imposed a tax on specified goods transported by road or inland waterways in the State of Assam. The majority in that case held that the Act put a direct restriction on the freedom of trade and, since in doing so, had not complied with the provisions of Article 304 (b), it must be declared to be void. In the second case the Rajasthan Motor Vehicles Taxation Act, 1951, was impugned as violating Article 301. But the majority did not accept the contention on the view that the Act was merely a regulatory measure imposing compensatory taxes for the use of trading facilities. The scope of Article 301 was again in the light of the earlier decisions referred to in Khyerbari Tea Co. v. State of Assam , where the Assam Taxation (On goods carried by Roads or Inland Waterways) Act as amended after Atiabari Tea Co. Ltd. v. State of Assam , was attacked on various grounds but without success. 15. As already seen, the distinction between a restriction and a regulation is fine but real, though the dividing line is not capable in the nature of things of a comprehensive and satisfactory definition. The test, broadly speaking, is whether the impugned provisions lay a direct and immediate burden on the movement of trade, commerce and intercourse or are intrinsically beneficial to and provide, in the ultimate analysis, facilities for better conduct of trade, commerce and intercourse. Observed Das, J., in Automobile Transport Ltd. v. State of Rajasthan

#### Regulation is strictly distinct from restriction of production

**Qureshi 46**

Indian representative at the United Nations Social and Economic council

<http://www.wto.org/gatt_docs/English/SULPDF/90220091.pdf>

Mr. Chairman, I would like to point out that in Article 47, Paragraph 1, the regulation of productionshould not mean restriction of production, otherwise the whole aim of raising the standard of living will be defeated; nor should it mean to discourage the production of certain commodities if certain countries find it necessary to do so and to expand their production in the interests of their country.

#### Restrictions go beyond inducements and disadvantages—formal, legal interpretation is key to avoid effects topicality and mixing burdens

**Groves 97**

Sourcebook on Intellectual Property Law

Dr Peter J Groves, LLB, MA, PhD, MITMA, Solicitor

Then I come to the word 'restrict', A person though not prohibited is restricted from using something if he is permitted to use it to a certain extent or subject to certain conditions but otherwise obliged not to use it, but I do not think that a person is properly said to be restricted from using something by a condition the effect of which is to offer him some inducement not to use it, or in some other way to influence his choice. To my mind, the more natural meaning here is restriction of the licensee's right to use the article and I am fortified in that opinion by two considerations. If I am right in thinking that 'require' and 'prohibit' refer to legal obligations to buy or not to use, I see nothing to suggest that 'restrict' is used in quite a different sense which has nothing to do with legal obligation but which relates to financial disadvantage. And, second, to say that the effect will be to restrict seems to me much more appropriate if restriction refers to restriction of the licensee's right to use than it would be if restriction refers to an inducement not to use. The legality of the condition has to be determined at the time when the licence is granted and if the terms of the conditions are such as to restrict the licensee's right to use an article in certain circumstances then it can properly be said that its effect will be to restrict him from using it. But if, as in the present case, all that can be said is that the effect of the condition in some circumstances will be to offer a financial advantage, which may be considerable or may be small, if the licensee uses the licensor's goods, I do not see how it can be said that its effect will be to restrict the licensee from using other goods. The licensee may be influenced by this financial advantage or he may, perhaps for good reason, choose to disregard it; it is impossible to say in advance what the effect will be.

#### Including regulation cracks the curriculum—even full-time professionals can’t manage that research burden

Stafford 83

<http://felj.org/elj/Energy%20Journals/Vol6_No2_1985_Book_Review2.pdf>

Associate, Ross, Marsh & Foster, Washington, D.C. The assistance of David L. Wallace, a third

year student at the Georgetown University Law Center, in the preparation of this review is greatly appreciated.

FEDERAL REGULATION OF ENERGY by William F. Fox, Jr. Shepard'slMcGraw-Hill, 1983, 846 pages Reviewed by G. William Stafford\* It may safely be said that any effort to catalogue "the entire spectrum of federal regulation of energy"' in a single volume certainly requires an enterprising effort on the part of the author. In this regard, Mr. William F. Fox, Jr., an Associate Professor of Law at Catholic University of America, has undertaken an examination of a vital aspect of United States policy in Federal Regulation of Energy, published in 1983 with an annual pocket supplement available. Despite the complex nature of the subject of his work, Mr. Fox has prepared a text that provides a significant description of many aspects of federal energy regulatory policy. Initially, the book's title may prove somewhat misleading in that it approaches the subject from an historical perspective focused more on substantive than procedural issues. Although a reader gets the impression that the author at time has tried to do too much -at least from the standpoint of the energy practitioner- the historical and technical insights it offers the student of federal energy relation are valuable. Moreover; its detailed explanations of the methods used to tneet federal energy goals are useful for those in the position of initiating energy policy. This strength notwithstanding, it appears unlikely that an energy law practitioner would benefit significantly from its use, other than from its historical point of view. A general impression is that the author may have been overly ambitious in his effort to undertake the monumental task of evaluating laws, regulations, and significant judicial decisions in a single work.

#### It’s an impossible neg burden

Edwards 80

JUDGES: Before EDWARDS, LEAR and WATKINS, JJ. OPINION BY: EDWARDS

AYOU BOUILLON CORPORATION, ET AL. v. ATLANTIC RICHFIELD COMPANY

No. 13229 Court of Appeal of Louisiana, First Circuit 385 So. 2d 834; 1980 La. App. LEXIS 3972; 67 Oil & Gas Rep. 240 May 5, 1980 PRIOR HISTORY: [\*\*1] ON APPEAL FROM THE 18TH JUDICIAL DISTRICT COURT, PARISH OF IBERVILLE, HONORABLE EDWARD N. ENGOLIO, JUDGE.

Comprehending the applicability and complexity of federal energy regulation necessitates both a stroll down the tortuous legislative path and a review of legal challenges so numerous as to require the establishment of a Temporary Emergency Court of Appeals.

#### Regulations add 5 million research hours

Tugwell 88

The Energy Crisis and the American Political Economy: Politics and Markets in the Management of Natural Resources

Previously, Dr. Tugwell was the executive director of the Heinz Endowments of Pittsburgh, the founder and president of the Environment Enterprises Assistance Fund, and as a senior consultant for International Projects and Programs at PG&E Enterprises. He served as a deputy assistant administrator at USAID (1980-1981) and as a senior analyst for the energy program at the U.S. Office of Technology Assessment (1979-1980). Dr. Tugwell was also a professor at Pomona College and an adjunct distinguished professor at the Heinz School of Carnegie Mellon University. Additionally, he serves on the Advisory Board and International Committee of the American Council on Renewable Energy and on the Joint Board of Councilors of the China-U.S. Center for Sustainable Development. He also serves on the Board of Eucord (European Cooperative for International Development). Dr. Tugwell received a PhD in political science from Columbia University.

Finally, administering energy regulations proved a costly and cumbersome endeavor, exacting a price all citizens had to pay. As the energy specialist Paul MacAvoy has noted: "More than 300,000 firms were required to respond to controls, ranging from the three dozen major refining companies to a quarter of a million retailers of petroleum products. The respondents had to file more than half a million reports each year, which probably took more than five mil- lion man-hours to prepare, at an estimated cost alone of $80 mil- lion."64 To these expenditures must be added the additional costs to the government of collecting and processing these reports, monitor- ing compliance, and managing the complex process associated with setting forth new regulations and adjudicating disputes. All to- gether, it seems likely that the administrative costs, private and public, directly attributable to the regulatory process also exceeded $1 billion a year from 1974 to 1980.^

#### Precision is vital—turns solvency and research quality

**Resnick 1** [Evan Resnick, Journal of International Affairs, 0022197X, Spring 2001, Vol. 54, Issue 2, “Defining Engagement”]

In matters of national security, establishing a clear definition of terms is a precondition for effective policymaking. Decisionmakers who invoke critical terms in an erratic, ad hoc fashion risk alienating their constituencies. They also risk exacerbating misperceptions and hostility among those the policies target. Scholars who commit the same error undercut their ability to conduct valuable empirical research. Hence, if scholars and policymakers fail rigorously to define "engagement," they undermine the ability to build an effective foreign policy.

### railguns

#### This advantage is a joke—they have 2 tiny cards saying it could provide a power source if used OUTSIDE the US—no card says it’s key or that railguns will fail without it

#### Railguns now

**Hsu 2012** – CSM

http://www.csmonitor.com/Science/2012/0301/Navy-railgun-fires-40-lb.-bullets-at-Mach-7-video

Navy railgun fires 40-lb. bullets at Mach 7 (+video)

By Jeremy Hsu, LiveScience / March 1, 2012

The first weapon-scale prototype of a futuristic Navy railgun began undergoing firing tests last week, the next big step toward putting the electromagnetic superweapon on U.S. warships by 2020. The Navy envisions using railguns to destroy enemy ships, defend against enemy missiles, or bombard land targets in support of Marines hitting the beaches.

Newly released video shows the prototype railgun using an electric-powered launcher rather than gunpowder to fire a huge hypersonic bullet in a cloud of flame and smoke. The Office of Naval Research hopes its new test phase — scheduled to last until 2017 — leads to aNavy weapon capable of hurling 40-pound projectiles at speeds of 4,500 mph to 5,600 mph over 50 to 100 miles (7,240 to 9,010 kilometers per hour over 80 to 161 kilometers).

The full-size prototype, made by BAE Systems, "looks like a real gun," said Roger Ellis, program manager for the railgun at the Office of Naval Research, during a media teleconference today. Previous tests involved clunky laboratory prototypes that would never see action aboard a Navy warship.

Are you scientifically literate? Take our quiz!

U.S. Navy commanders ultimately want a weapon capable of firing up to 10 guided projectiles per minute at targets up to 100 miles away. Navy warships currently have 5-inch guns capable of firing at distances of 13 miles.

"There is potential to replace the 5-inch gun, but it would do far more," Ellis said in response to an InnovationNewsDaily question. The railgun could hit the same distant targets that Navy missiles strike today, he said.

The flames that appear in the video of the test firing come from a combination of electricity arcing across the launcher, shavings of aluminum reacting with the air, and the bullet's hypersonic flight, said Tom Boucher, test director for the railgun at the Naval Surface Warfare Center Dahlgren Division in Virginia.

A second railgun prototype, built by General Atomics, is set to arrive for testing in April, Ellis said. Having railguns built by different companies gives the Navy a choice if it ultimately decides to deploy the superweapon.

#### This is the conclusion of their article

**Vlahos ‘12**

Kelley, writer for Fox News, “It's real! Navy test-fires first working prototype railgun,” http://www.foxnews.com/tech/2012/02/28/its-real-navy-test-fires-first-working-prototype-railgun/, AM

The energy question is a big one, as experts have said the amount of electricity necessary to operate the railgun at 32 megajoules would require a ship that that can generate enough power, one that doesn’t yet exist. It may be the massive Zumwalt class DDG-1000 destroyer, which is now being designed as a multi-mission ship at a price tag of $3.3 billion per ship.

**Ellis said ONR is working on a battery system** that would mitigate the problem by storing up energy much like the batteries used in hybrid vehicles, allowing the Navy to position the guns on both “new and existing platforms” and still get the pulsed power necessary to operate at optimum levels.

Phase II is expected to end in 2017, at which time the railgun, if complete, would go into a funding and acquisition phase that will take the project to full deployment on Navy ships by 2025, though there are hopes for a slightly shorter timeline, Ellis said.

So far, the railgun has cost taxpayers $240 million in research and design costs, according to ONR. Ellis said the project has been “adequately funded” for Phase II and should come in at a similar price tag.

“(Congress) did ask for a better understanding of the future of the railgun, and we are comfortable that the information we have provided will help them understand the benefits of the program,” Klunder said. "**The prototype railgun is now functioning and successful** and we hope this helps to increase overall confidence in the significance of the program.”

#### It works now ON SHIPS

**McGlaun 2010**

Daily Tech

Shane

http://www.dailytech.com/Navy+Railgun+Fires+33megajoule+Shot+/article20372.htm

The Navy announced last week that it [hit a milestone](http://www.navy.mil/search/display.asp?story_id=57690) with its railgun project. The railgun fires a very fast projectile that is accelerated with electricity rather than gunpowder or explosives. The weapon payload uses kinetic energy to destroy targets rather than a high-explosive warhead.

The Navy milestone hit last week was the world-record 33-megajoul shot from the electromagnetic Railgun aboard the Navy Surface Center Dahlgren Division. A megajoule is a measurement of energy associated with a mass traveling at a certain velocity. A one-ton vehicle moving at 100mph is a single megajoule of energy.

"Today's railgun test demonstrates the tactical relevance of this technology, which could one day complement traditional surface ship combat systems," said Rear Adm. Nevin Carr, chief of naval research.

### china

**No impact to buildup**

**Thompson 2010** – director of China Studies and Starr Senior Fellow at the Nixon Center (Drew, Foreign Policy, “Think again: China’s military”, http://www.foreignpolicy.com/articles/2010/02/22/think\_again\_chinas\_military?page=0,6)

Although Beijing has not yet sought to deploy combat-capable military units to the sites of international natural disasters, in the not-too-distant future Chinese military aircraft might be delivering Chinese-made disaster-relief supplies. Having recently commissioned a hospital ship, Chinese naval strategists have already identified disaster relief as a key mission for a future Chinese aircraft carrier, while military writers discuss how to conduct regional missions to protect China's interests outside its territorial waters.

Undoubtedly, Chinese war planners see a future in which China will be able to defend itself offshore and its navy will operate beyond what is sometimes referred to as the "first island chain" (an imaginary line stretching from Japan, through Okinawa and Taiwan, and south to the Philippines and the South China Sea), eventually encompassing much of the Western Pacific up to the "second island chain" that runs from Japan southward past Guam to Australia. But whether Beijing envisions one day establishing overseas bases, or simply having the capability to project power globally when needed, is unclear.

Some wonder whether China and the United States are on a collision course. Kaplan [raised the ominous possibility in the Atlantic](http://www.theatlantic.com/doc/200506/kaplan) that when the Chinese navy does push out into the Pacific, "it will very quickly encounter a U.S. Navy and Air Force unwilling to budge from the coastal shelf of the Asian mainland," resulting in a "replay of the decades-long Cold War, with a center of gravity not in the heart of Europe but, rather, among Pacific atolls." Unquestionably, there is deep strategic mistrust between the two countries. China's rapid economic growth, steady military modernization, and relentless nationalistic propaganda at home are shaping Chinese public expectations and limiting possibilities for compromise with other powers.

**This does not make conflict inevitable, but it is cause for** long-term **concern and will shape** U.S. **efforts to avoid hostilities** with China. Military-to-military contacts lag far behind the rest of the U.S.-China relationship. Taiwan is an obvious point of disagreement and the one place where the two powers could conceivably come into direct conflict. U.S. maritime surveillance activities inside China's exclusive economic zone are another contentious point. There is, however, a growing recognition that the United States and China should engage one another and seek to avoid a conflict that would almost certainly be destructive to both sides.

**Insurmountable tech barriers—they have to account for every single one or it’s zero risk**

**Hoyler 2010** – defense analyst at the Congressional Budget Office, the Center for Naval Analyses, and the Institute for Defense Analyses (Marshall, Naval War College Review, 63.4, “China’s ‘antiaccess’ ballistic missiles and U.S. active defense”, <http://www.usnwc.edu/getattachment/74ed0fae-cc89-4a64-9d6a-5cf6985a6f33/China-s--Antiaccess--Ballistic-Missiles-and-U-S--A>, WEA)

Analysts Eric Hagt and Matthew Durnin have reviewed the potential contribution of various kinds of satellites and identified strengths and limitations of each. They say that satellite-borne ELINT (electronic intelligence) and SIGINT (signals intelligence) systems could provide “long-distance early warning.” 14 However, their apparently exhaustive list makes no mention of ELINT satellites. I conclude that China now has few such satellites, if any. As long as that is true, China will be able perform ELINT/SIGINT missions for only part of each day (a large number would be required to keep potential carrier operating areas under continuous surveillance). That limitation matters because the United States can tell when SIGINT satellites come within range of carriers. During those periods, the United States can use emission control (EMCON) to defeat SIGINT. 15 The shorter those periods, the better for the United States, because EMCON can sharply reduce a carrier’s operational effectiveness.

Of course, China needs other capabilities to enable its satellite constellation to provide targeting-quality data to ASBM launchers. Hagt and Durnin observe that “China . . . lacks C4ISR infrastructure—such as information processing, bandwidth capacity, and network support—needed for wide-area surveillance.” 16 In addition, they note “organizational and bureaucratic barriers impeding the ability of disparate space assets to perform highly time-sensitive missions,” such as precise location of a moving carrier far at sea. 17 Similarly, Thomas Ehrhard and Robert Work state that “even when PRC [People’s Republic of China] engineers fit all of the technical pieces together, it will take even more time for the PLAN, PLANAF, and PLAAF [respectively, the People’s Liberation Army Navy, Naval Air Force, and Air Force] to develop the tactics, techniques, and procedures necessary to convert their disparate systems and combat methods into a truly effective joint operational network.” 18

Despite these obstacles, Hagt and Durnin apparently regard a space-based system as China’s best hope for detecting, locating, and tracking carriers in the foreseeable future. Indeed, they assert that if everything goes as well for China as they think possible to imagine, “a system competent to provide near-real-time regional coverage could be five years away.” 19

A second set of technological challenges confronts China even if it can get targeting-quality data to the mobile transporter-erector launchers (TELs) of its ASBM and launch weapons promptly. Those challenges involve building an ASBM whose reentry vehicle (RV) seeker can identify and track the carrier and guide the RV to hit it. For example, “reentry into the atmosphere . . . would produce a plasma shield, making homing by radar and infrared difficult.” 20 Other technical obstacles include development of “materials needed to protect sophisticated guidance systems during reentry; the ability to function in an environment of higher speed and more severe temperature dynamics than in earlier applications; and the ability to distinguish a target at unusual angles of attack at the distances required for reentry.” 21

### navy

**Sea power is irrelevant for future conflicts**

**Jarkowsky, 2** (Lt. Col. Jeffrey Jarkowsky, US Army War College, “’Boots on the Ground’–Will US Landpower still be decisive in future conflicts?” Stinet)

The role of seapower is unlikely to change from the vision expressed in current naval doctrine and vision. With no naval competitor in sight, the U.S. Navy's focus on projection of U.S. power ashore, and protection of global trade, fits the conditions expected in the future. The opening round of OPERATION ENDURING FREEDOM has demonstrated the capability and contribution of seapower to America's future conflicts. The nature of the conflict will determine whether seapower can be decisive. Quite obviously, in a limited seaborne conflict, such as protecting shipping in the Straits of Hormuz, seapower was and can be the decisive element. In more general conflicts of the type we have recently seen and are likely to deal with again, although a key contributor, seapower is not likely to be the sole decisive force in achieving the conflict's objectives

**Alt cause—Navy equipment shortages.**

**Peters 5** (Todd David Peters, Naval Postgraduate School, Thesis, “Bold Course into the Future or Lost at Sea: a Critical Evaluation of the United States; Navy’s Ongoing Transformation” 2005)

Implementation of the FRP marks a significant departure for the Navy in terms of how it organizes and employs its fleet formations. However, this type of change has very little impact on the strategic utility of the fleet in being. Reorganization is not the same as altering the composition of the fleet itself in order for any significant transformation to meet a new strategy. No amount of reorganization will alter the stark fact that while the platforms which comprise the vast majority ofthe Navy's current fleet would be perfectly capable of meeting a Soviet style force in direct combat, they are much less suited to undertake the peacekeeping and stability operations the Navy finds itself being tasked with. Furthermore, the current fleet structure remains unsuited to fight in the shallow littoral environment intowhich an increasing number of its potential adversaries have retreated.68

**Status quo budget cuts have devastated navy power- alt cause**

**Eaglen and McGrath 11** (Mackenzie Eaglen is Research Fellow for National Security in the Douglas and Sarah Allison Center for Foreign Policy Studies, a division of the Kathryn and Shelby Cullom Davis Institute for International Studies, at The Heritage Foundation. Bryan McGrath is a retired naval officer and the Director of Delex Consulting, Studies and Analysis in Vienna, Virginia. On active duty, he commanded the destroyer USS Bulkeley (DDG 84) and served as the primary author of the current maritime strategy, “Thinking About a Day Without Sea Power: Implications for U.S. Defense Policy”, <http://www.heritage.org/Research/Reports/2011/05/Thinking-About-a-Day-Without-Sea-Power-Implications-for-US-Defense-Policy>, May 16, 2011)

Abstract: America is a maritime power, and a strong U.S. Navy is both in America’s long-term interest and essential to the nation’s prosperity. Yet U.S. sea power is in decline. If not reversed, this decline could pass the tipping point, leaving the country economically and strategically unable to reverse course, which would have profound economic and geopolitical consequences. Members of Congress and the Navy need to work together to develop long-range technology road maps, foster innovation, and properly fund and manage shipbuilding to ensure that the future Navy has the size and capabilities needed to protect and advance U.S. interests around the world. Not since the end of World War II has America more urgently needed honest and clear thinking about its enduring national interests and a bipartisan commitment to build up the civilian and military capabilities necessary to protect them. Yet Washington is increasingly looking inward. Policymakers spend enormous energy arguing about tactics without thinking about strategy. They react to today’s events rather than planning for the future. Without a common purpose and driven by the desire to save money, they take steps that will reduce military spending in the

short term but vastly increase the danger and cost to America in the long term. The margins of U.S. military superiority are narrowing for every military service and in every domain. After the Cold War, military overmatch had seemingly become an American birthright and helped to uphold the implicit contract that most Americans have had with the all-volunteer military: that U.S. forces would never be put in a “fair fight.” This is simply no longer the case, as indicated by America’s recent experience in Iraq and Afghanistan and potential challenges from Iran and China. Before some of America’s core defense capabilities disappear without discussion or debate, Congress and the services would be wise to step back and examine the costs and benefits of these long-held capabilities, many of which are fundamental to U.S. military primacy. Understanding a world without these U.S. advantages will highlight their essential role both in creating and maintaining the economic and geopolitical position that America enjoys today and in fostering U.S. prosperity in the future. Congress should use this thought exercise to inform its oversight of the services and to restore the legislative branch’s legitimate role in policymaking. […] What Should Be Done Sir Walter Raleigh sagely remarked several centuries ago, “Whosoever commands the sea commands the trade; whosoever commands the trade of the world commands the riches of the world, and consequently the world itself.”[18] The United States is a maritime nation, and the Navy, Marine Corps, and Coast Guard are the primary guardians of this global status. The Navy’s core competencies, as laid out in various strategies, are to maintain maritime superiority on, below, and above the high seas against all powers, including nation-states and non-state actors. Because the U.S. Navy fulfills its mission so successfully and so benignly, the fleet has not fought a battle at sea since World War II. It is easy for some to overlook this critical mission and to focus on less important priorities. Developing a Long-Term Research and Development Plan. After numerous studies and a half-dozen shipbuilding plans, Navy leaders have correctly concluded that the United States needs a larger fleet—not simply in numbers of ships and aircraft, but also in terms of increased network capability, longer range, and increased persistence. Navy leaders recognize that the U.S. is quickly losing its monopolies on guided weapons and the ability to project power. Precision munitions (guided rockets, artillery, mortars, and missiles) and battle networks are proliferating, while advances in radar and electro-optical technology are increasingly rendering stealth less effective. Policymakers should help the Navy to take a step back and look at the big picture to inform future investment portfolios. Congress should demand and uniformed leaders should welcome the opportunity to develop long-range technology road maps, including a science and technology plan and a research and development plan for the U.S. Navy. These plans should broadly outline future investments, capabilities, and requirements. The possibilities include: A next-generation surface combatant, A sixth-generation fighter, and Low-observable capabilities beyond stealth. These plans should also identify and prioritize the need for additional investment in critical capabilities, including: More capable anti-ship, land attack, and air-to-air missiles; Satellite recapitalization; Directed energy and electromagnetic weapons; Underwater weapons, including an unmanned underwater vehicle; Nanotechnology and solid-state and fiber lasers; Biotechnologies; and Advanced cyber technologies. In light of the need for a comprehensive, long-range technology road map for the Navy, Congress should consider adding to its quadrennial requirement for a 30-year shipbuilding plan by directing the Navy to submit a long-range technology road map on a quadrennial basis, two years out of phase with the shipbuilding plan. The technology road map should be holistic and should account for the rapidly declining force structure of the Navy’s global maritime partners and the potential emergence of new players. The analysis should also consider shifting global shipping patterns, including the expansion of the Panama Canal and melting in the Arctic. By some estimates: [M]elting of Arctic ice will open up new passages for transit, offering significantly shorter routes between Europe and North America and the Pacific—perhaps up to 40 percent faster sailing times and significant fuel savings and emissions reductions. Seasonal commercial lanes through the Arctic ice could appear within less than five years. The ability to navigate the region will increase the search for and development of significant natural resources including oil. Scientific research in the Arctic will also expand.[19] Any long-term analysis should also carefully consider the capabilities required in the increasingly contested undersea domain. Congress should also ask that the Navy provide a “resource unconstrained” fleet composition that is appropriate to meeting the requirements of A Cooperative Strategy for 21st Century Seapower, the Navy’s 2007 maritime strategy.[20] The study should include an analysis of the capabilities and missions called for in the strategy and identify which ones, given current and planned fleet size and resources, are at risk. This study should include options for additional forward stationing of U.S. Navy vessels and proposals for new classes of ships designed specifically for low-end naval presence missions. Without this type of strategy-driven analysis by Navy leaders, Congress will continue to struggle to determine where to apply diminishing resources within the defense budget and how to justify the additional investments needed in higher-priority areas. Building a Modern Congress–Navy Partnership. After years of outside analysis showing that the Navy was underestimating and underfunding the shipbuilding needed to build anything close to its own requirement for a 313-ship fleet, some Members of Congress are growing skeptical. Navy leaders are not helping their case. Both they and Congress need a strong relationship to help the nation build and afford the future fleet. To increase confidence in Navy shipbuilding budget estimates, Congress should direct the Office of the Secretary of Defense, the Department of the Navy, and the Congressional Budget Office to use a set of consistent costing methods to reduce the wide variances in cost estimates among Navy shipbuilding plans, defense budgets, CBO estimates, and external analyses. Additionally, Congress should mandate that the Secretary of the Navy certify the design wholeness and cost estimates for any new ship class before authorization of the first hull. The Navy should seek and Congress should approve the appointment of a four-star admiral to a newly created position of Director of Navy Shipbuilding. This person would be appointed for a term of eight years (analogous to the existing Director of Naval Nuclear Propulsion, who oversees all Navy nuclear power). The director would oversee design, acquisition, construction, and life-cycle management of all surface ships, aircraft carriers, and submarines. Current program executive officers for ships, submarines, and aircraft carriers would report to this new executive, who would report in turn to both the Chief of Naval Operations and the Secretary of the Navy. To relieve additional pressure on the already strained Navy shipbuilding budget, Congress should seriously consider funding the design and construction costs of the Navy’s new replacement ballistic missile submarine outside of Navy budget controls. These national assets are employed as part of critical strategic missions. Without additional resources, the defense industrial base and the nation’s conventional advantage at sea could be sacrificed to recapitalize the strategic force. Alternatively, Congress should consider whether this extremely expensive leg of the nuclear triad should be maintained in the face of decreasing stealth, shrinking nuclear stockpiles, and limited shipbuilding funds. Recapturing Innovation and a Sound Industrial Policy. Despite the fact that “industrial policy” became a dirty word from its association with socialist governments during the Cold War, Congress needs to prevent the loss of innovation in defense-related research and development. Members should already know and be alarmed that the U.S. military has no manned aircraft under development—a first in the history of aviation. Similarly, no surface ships or attack submarines are in the design phase. With development cycles lasting 20 years or longer, elected leaders need to ensure that the Defense Department is not losing critical skills that will be needed to imagine and build the next generation of ships, aircraft, sensors, and weapons for the U.S. Navy. The critical workforce ingredients needed to sustain an industrial base capable of building next-generation systems are specialized design, engineering, and manufacturing skills. The growth of the defense industry after World War II peaked in the late 1950s when defense production became a leading sector of the national economy, a trend that continued well into the 1980s. This period was also marked by an increased focus on developing advanced defense technologies. By 1960, the federal government was responsible for 58 percent of the nation’s research and development investments. This emphasis required a new level of engineering skills and capabilities within the industry to develop the complex defense systems the government sought to build. Since World War II, the United States has benefited from the skills of a robust defense industrial and manufacturing workforce. For more than six decades, various U.S. defense strategies have emphasized the benefits of a technologically superior military to help to deter and win wars. The U.S. military has pursued this “technical overmatch” for decades in an attempt to deter potential enemies from engaging the U.S. in conflict and to reduce risk and loss of life on the battlefield. When the Cold War ended in 1991, the sudden apparent dissolution of national security threats prompted a period of intense downsizing and consolidation. Whereas more than 50 major defense firms dominated the market in the early 1990s, only six prime contractors remain today. Contrary to popular perception, 60 percent to 75 percent of work programs in the aerospace and defense industries are performed by sub-prime companies and lower-tier suppliers, not the big defense contractors. These small companies are increasingly vulnerable to the vagaries of defense budgets, and reductions in defense research and development will cause them to disappear along with their tooling and skills. An expected, the emerging round of consolidation of the defense industry has increased the burden on the small collection of defense companies. The consolidation of major defense contractors has generally reduced the number of available workers. Already at a turning point, the potential closure of major defense manufacturing lines in the next five years with no additional scheduled production could shrink this national asset even further. While the manufacturing workforce alone should not dictate congressional defense acquisition decisions, Congress needs to consider the potential defense “brain drain” when determining whether or not to shut down major production lines permanently, particularly in shipbuilding and aerospace. More often than not, once these highly skilled workers leave the federal workforce, they are difficult to recruit back and even more expensive to retrain. This dynamic creates significant project gaps. Training in Degraded Environments and Congressional Participation in Wargames and Exercises. Navy leaders should begin earnestly sponsoring regular and realistic training in degraded environments. U.S. forces should be capable of operating in live-fire exercises without access to the overhead architecture of U.S. space and satellite assets. The U.S. military should know how it will operate without access to U.S. forward bases and allied and foreign airspace. Congress needs to reengage dramatically in wargaming exercises, particularly Members of Congress who serve on the four defense committees. In these exercises, Members of Congress would not join military members in simulating combat, but rather would react to proposed scenarios of varying depth and scope and determine the policy implications of those decisions and lessons learned. For example, Members of Congress could participate in a simulation in which Iran acquires nuclear weapons in the next three years, prompting a Middle East arms race, and uses that leverage to hold global oil supplies hostage by shutting down the Strait of Hormuz. In this exercise, Congress and executive branch officials would examine the international and domestic responses to the crisis, evaluate the principal actors’ interactions, and simulate the effects on world oil supply, demand, and prices along with instability in the region. Other ideas for possible exercises include evaluating the U.S. policy options in responding to a cyber attack on U.S. infrastructure, including the energy grid, online financial resources and banking, and the transportation network. Congress could also evaluate options in a world in which the U.S. military must rapidly mobilize personnel beyond the current force. Conclusion Financing the future Navy fleet is simply common sense for a maritime power. A strong Navy is in America’s long-term interest and essential to the nation’s prosperity. Failure to invest in the fleet, reverse its decline, and maintain steady growth in the number of ships in the Navy’s inventory will only embolden U.S. adversaries. History has seen more than one great naval power (e.g., Spain, Portugal, the Netherlands, and the United Kingdom) become a shadow of its former self when it failed to maintain its maritime preeminence. It is difficult to imagine that the nation desires such a decline—and even more difficult to accept that Congress and the Administration are letting it happen.

### russia

#### No Arctic conflict over resources – ongoing cooperation benefits every country

The Economist 6-16-2012; “Too much to fight over” http://www.economist.com/node/21556797

Yet the risks of Arctic conflict have been exaggerated. Most of the Arctic is clearly assigned to individual countries. According to a Danish estimate, 95% of Arctic mineral resources are within agreed national boundaries. The biggest of the half-dozen remaining territorial disputes is between the United States and Canada, over whether the north-west passage is in international or Canadian waters, hardly a casus belli. Far from violent, the development of the Arctic is likely to be uncommonly harmonious, for three related reasons. One is the profit motive. The five Arctic littoral countries, Russia, the United States, Canada, Denmark and Norway, would sooner develop the resources they have than argue over those they do not have. A sign of this was an agreement between Russia and Norway last year to fix their maritime border in the Barents Sea, ending a decades-long dispute. The border area is probably rich in oil; both countries are now racing to get exploration started. Another spur to Arctic co-operation is the high cost of operating in the region. This is behind the Arctic Council's first binding agreement, signed last year, to co-ordinate search-and-rescue efforts. Rival oil companies are also working together, on scientific research and mapping as well as on formal joint ventures. The third reason for peace is equally important: a strong reluctance among Arctic countries to give outsiders any excuse to intervene in the region's affairs. An illustration is the stated willingness of all concerned to settle their biggest potential dispute, over their maritime frontiers, according to the international Law of the Sea (LOS). Even the United States accepts this, despite its dislike for treaties—though it has still not ratified the United Nations Convention on the Law of the Sea, an anomaly many of its leaders are keen to end.

### warming

**Long timeframe means intervening actors and tech solve**

**Michaels 7** – Cato senior fellow (Patrick, 2/2, Live with Climate Change, http://www.cato.org/pub\_display.php?pub\_id=7502)

Consequently, the best policy is to live with some modest climate change now and encourage economic development, which will generate the capital necessary for investment in the more efficient technologies of the future.

Fortunately, we have more time than the alarmists suggest. The warming path of the planet falls at the lowest end of today's U.N. projections. In aggregate, our computer models tell us that once warming is established, it tends to take place at a constant, not an increasing, rate. Reassuringly, the rate has been remarkably constant, at 0.324 degrees F per decade, since warming began around 1975. The notion that we must do "something in 10 years," repeated by a small but vocal band of extremists, enjoys virtually no support in the truly peer reviewed scientific literature.

Rather than burning our capital now for no environmental gain (did someone say "ethanol?"), let's encourage economic development so people can invest and profit in our more efficient future.

People who invested in automobile companies that developed hybrid technology have been rewarded handsomely in the past few years, and there's no reason to think environmental speculators won't be rewarded in the future, too.

#### Algea Photosynthesis checks ocean acidification

**Carter 11** – Robert, PhD, Adjuct Research Fellow, James Cook University, Craig Idso, PhD, Chairman at the Center for the Study of Carbon Dioxide and Global Change, Fred Singer, PhD, President of the Science and Environmental Policy Project, Susan Crockford, evolutionary biologist with a specialty in skeletal taxonomy , paleozoology and vertebrate evolution, Joseph D’Aleo, 30 years of experience in professional meteorology, former college professor of Meteorology at Lyndon State College, Indur Goklany, independent scholar, author, and co-editor of the Electronic Journal of Sustainable Development, Sherwood Idso, President of the Center for the Study of Carbon Dioxide and Global Change, Research Physicist with the US Department of Agriculture, Adjunct Professor in the Departments of Geology, Botany, and Microbiology at Arizona State University, Bachelor of Physics, Master of Science, and Doctor of Philosophy, all from the University of Minnesota, Madhav Khandekar, former research scientist from Environment Canada and is an expert reviewer for the IPCC 2007 Climate Change Panel, Anthony Lupo, Department Chair and Professor of Atmospheric Science at the University of Missouri, Willie Soon, astrophysicist at the Solar and Stellar Physics Division of the Harvard-Smithsonian Center for Astrophysics, Mitch Taylor (Canada) [“Climate Change Reconsidered 2011 Interim Report,” September, Science and Environmental Policy Project, Center for the Study of Carbon Dioxide and Global Change, Published by The Heartland Institute]

Another reason to doubt Pelejero et al.‘s forecast of falling pH levels is that high rates of aquatic photosynthesis by marine micro- and macro-algae, which have been shown to be stimulated and maintained by high levels of atmospheric CO2—see, for example, Wu et al. (2008), Fu et al. (2008), and Egge et al. (2009)—can **dramatically increase the pH of marine bays, lagoons, and tidal pools** (Gnaiger et al., 1978; Santhanam et al., 1994; Macedo et al., 2001; Hansen, 2002; Middelboe and Hansen, 2007) and significantly increase the surface-water pH of areas as large as the North Sea (Brussaard et al., 1996). Thus it is logical to presume anything else that enhances marine photosynthesis, such as nutrient delivery to the waters of the world‘s coastal zones (i.e., eutrophication), may increase pH as well. Thinking along these lines, Borges and Gypens (2010) employed an idealized biogeochemical model of a river system (Billen et al., 2001) and a complex biogeochemical model describing carbon and nutrient cycles in the marine domain (Gypens et al., 2004) ―to investigate the decadal changes of seawater carbonate chemistry variables related to the increase of atmospheric CO2 and of nutrient delivery in the highly eutrophied Belgian coastal zone over the period 1951–1998.‖ The findings of the two researchers indicate, as they describe it, that ―the increase of primary production due to eutrophication could **counter the effects of ocean acidification** on surface water carbonate chemistry in coastal environments,‖ and ―changes in river nutrient delivery due to management regulation policies can lead to **stronger** **changes in carbonate chemistry than ocean acidification**,‖ as well as changes that are ―faster than those related solely to ocean acidification.‖ And to make these facts perfectly clear, they add, ―the response of carbonate chemistry to changes of nutrient delivery to the coastal zone is **stronger than ocean acidification**.‖

#### Adaptation Solves

**Carter 11**, Robert, PhD, Adjuct Research Fellow, James Cook University, Craig Idso, PhD, Chairman at the Center for the Study of Carbon Dioxide and Global Change, Fred Singer, PhD, President of the Science and Environmental Policy Project, Susan Crockford, evolutionary biologist with a specialty in skeletal taxonomy , paleozoology and vertebrate evolution, Joseph D’Aleo, 30 years of experience in professional meteorology, former college professor of Meteorology at Lyndon State College, Indur Goklany, independent scholar, author, and co-editor of the Electronic Journal of Sustainable Development, Sherwood Idso, President of the Center for the Study of Carbon Dioxide and Global Change, Research Physicist with the US Department of Agriculture, Adjunct Professor in the Departments of Geology, Botany, and Microbiology at Arizona State University, Bachelor of Physics, Master of Science, and Doctor of Philosophy, all from the University of Minnesota, Madhav Khandekar, former research scientist from Environment Canada and is an expert reviewer for the IPCC 2007 Climate Change Panel, Anthony Lupo, Department Chair and Professor of Atmospheric Science at the University of Missouri, Willie Soon, astrophysicist at the Solar and Stellar Physics Division of the Harvard-Smithsonian Center for Astrophysics, Mitch Taylor (Canada) [“Climate Change Reconsidered 2011 Interim Report,” September, Science and Environmental Policy Project, Center for the Study of Carbon Dioxide and Global Change, Published by The Heartland Institute]

In further discussing the subject, Langer et al. (2009) write, ―shifts in dominance between species and/or between clones within a species might therefore be expected,‖ as the air‘s CO2 content continues to rise; but they state that too often ―the possibility of adaptation is not taken into account.‖ This should not be assumed away, for the great genetic diversity that exists both among and within species, in the words of Stoll, ―is good insurance in a changing ocean.‖ Indeed, this could be interpreted as evidence that Earth‘s coccolithophorids are well prepared for whatever the future may thrust at them in this regard, for as Langer et al. (2006) have more boldly and explicitly stated, ―genetic diversity, both between and within species, may allow calcifying organisms to prevail in a high CO2 ocean.‖

#### No impact – ocean acidification only matters at levels far more extreme than warming would cause

**Carter 11**, Robert, PhD, Adjuct Research Fellow, James Cook University, Craig Idso, PhD, Chairman at the Center for the Study of Carbon Dioxide and Global Change, Fred Singer, PhD, President of the Science and Environmental Policy Project, Susan Crockford, evolutionary biologist with a specialty in skeletal taxonomy , paleozoology and vertebrate evolution, Joseph D’Aleo, 30 years of experience in professional meteorology, former college professor of Meteorology at Lyndon State College, Indur Goklany, independent scholar, author, and co-editor of the Electronic Journal of Sustainable Development, Sherwood Idso, President of the Center for the Study of Carbon Dioxide and Global Change, Research Physicist with the US Department of Agriculture, Adjunct Professor in the Departments of Geology, Botany, and Microbiology at Arizona State University, Bachelor of Physics, Master of Science, and Doctor of Philosophy, all from the University of Minnesota, Madhav Khandekar, former research scientist from Environment Canada and is an expert reviewer for the IPCC 2007 Climate Change Panel, Anthony Lupo, Department Chair and Professor of Atmospheric Science at the University of Missouri, Willie Soon, astrophysicist at the Solar and Stellar Physics Division of the Harvard-Smithsonian Center for Astrophysics, Mitch Taylor (Canada) [“Climate Change Reconsidered 2011 Interim Report,” September, Science and Environmental Policy Project, Center for the Study of Carbon Dioxide and Global Change, Published by The Heartland Institute]

Lastly, Rodolfo-Metalpa et al. (2010) worked with bryozoans or ―moss animals‖—a geologically important group of small animals that resemble corals and are major calcifiers, found on rocky shores in cool-water areas of the planet, where they comprise a significant component of the carbonate sediments in shallow sublittoral habitats, and where they form long-lived, three-dimensional structures that provide attachment sites for numerous epifauna and trap sediment and food for a variety of infauna—in what they describe as ―the first coastal transplant experiment designed to investigate the effects of naturally acidified seawater on the rates of net calcification and dissolution of the branched calcitic bryozoan Myriapora truncata.‖ They did this by transplanting colonies of the species to normal (pH 8.1), high (pH 7.66), and extremely high (pH 7.43) CO2 conditions at gas vents located just off Italy‘s Ischia Island in the Tyrrhenian Sea, where they calculated the net calcification rates of live colonies and the dissolution rates of dead colonies by weighing them before and after 45 days of in situ residence in May–June (when seawater temperatures ranged from 19 to 24°C) and after 128 days of in situ residence in July–October (when seawater temperatures ranged from 25–28°C). Throughout the first and cooler observation period, ―dead M. truncata colonies dissolved at high CO2 levels (pH 7.66), whereas live specimens maintained the same net calcification rate as those growing at normal pH,‖ the researchers write. At the extremely high CO2 level, however, the net calcification rate of the live specimens was reduced to only about 20 percent of what it was at normal pH, but life continued. Throughout the second and warmer observation period, on the other hand, calcification ceased in both the normal and high CO2 treatments,and in the extremely high CO2 treatment, the transplants died. Based on these findings the five scientists concluded, ―at moderate temperatures,‖ such as those to which they are currently adapted, ―adult M. truncata are able to up-regulate their calcification rates and survive in areas with higher levels of pCO2 than are predicted to occur due to anthropogenic ocean acidification, although this ability broke down below mean pH 7.4.‖ This latter level, however, is below what even the IPCC predicts will occur in response to continued burning of fossil fuels, and far below what the more realistic analysis of Tans (2009) suggests.

#### There are multiple Feedbacks:

#### First is N Screw – nitrogen from emissions checks warming – their models don’t assume this

**Carter 10–** Robert, PhD, Adjuct Research Fellow, James Cook University, Craig Idso, PhD, Chairman at the Center for the Study of Carbon Dioxide and Global Change, Fred Singer, PhD, President of the Science and Environmental Policy Project, Susan Crockford, evolutionary biologist with a specialty in skeletal taxonomy , paleozoology and vertebrate evolution, Joseph D’Aleo, 30 years of experience in professional meteorology, former college professor of Meteorology at Lyndon State College, Indur Goklany, independent scholar, author, and co-editor of the Electronic Journal of Sustainable Development, Sherwood Idso, President of the Center for the Study of Carbon Dioxide and Global Change, Research Physicist with the US Department of Agriculture, Adjunct Professor in the Departments of Geology, Botany, and Microbiology at Arizona State University, Bachelor of Physics, Master of Science, and Doctor of Philosophy, all from the University of Minnesota, Madhav Khandekar, former research scientist from Environment Canada and is an expert reviewer for the IPCC 2007 Climate Change Panel, Anthony Lupo, Department Chair and Professor of Atmospheric Science at the University of Missouri, Willie Soon, astrophysicist at the Solar and Stellar Physics Division of the Harvard-Smithsonian Center for Astrophysics, Mitch Taylor (Canada) (October 6th 2010, “[The Effect of Nitrogen Deposition on Forest Soil Respiration](http://www.nipccreport.org/articles/2010/oct/06oct2010a4.html)” <http://www.nipccreport.org/articles/2010/oct/06oct2010a4.html>) Jacome

Janssens et al. (2010) write that "atmospheric deposition of reactive nitrogen, originating mainly from fossil-fuel burning and artificial fertilizer applications, has increased three- to five-fold over the past century," and they say that "in many areas of the globe, nitrogen deposition is expected to increase further." This phenomenon stimulates plant growth and the uptake of carbon from the atmosphere, contributing to climate change mitigation; and they state that Magnani et al. (2007) demonstrated nitrogen deposition to be "the dominant driver of carbon sequestration in forest ecosystems," although there has been what they describe as "intense debate" about the magnitude and sustainability of the phenomenon and its underlying mechanisms.

In an effort designed to further explore the subject, Janssens et al. conducted "a meta-analysis of measurements in nitrogen-addition experiments, and a comparison of study sites exposed to elevated or background atmospheric nitrogen deposition."

The work of the fifteen scientists revealed, in their words, that "nitrogen deposition impedes organic matter decomposition, and thus stimulates carbon sequestration, in temperate forest soils where nitrogen is not limiting microbial growth." What is more, they find that "the concomitant reduction in soil carbon emissions is substantial," being "equivalent in magnitude to the amount of carbon taken up by trees owing to nitrogen fertilization."

For those worried about the (highly unlikely) prospect of CO2-induced global warming, these findings should be good news; for in the concluding sentence of their paper, Janssens et al. state that "the size of the nitrogen-induced inhibition of below-ground respiration is of the same order of magnitude as the forest carbon sink." And they state in the concluding sentence of their paper's introduction that "**this effect has not been included in current carbon-cycle models**," suggesting that when it is included, it will contribute much to "climate change mitigation."

#### Feedbacks are the only thing that matter – co2’s effect itself is small – negative feedbacks outweigh

**De Freitas 11** – associate professor in the school of environment at the University of Auckland, (Chris, 1-4 http://www.nzherald.co.nz/nz/news/article.cfm?c\_id=1&objectid=10697845)

The degree of warming directly caused by the extra carbon dioxide is, by itself, relatively small. This is not controversial. What is controversial is whether this initial change will trigger further climate changes that would be large or damaging. Debate focuses on climate feedbacks that may or may not suppress, perpetuate or amplify an initial change caused by increasing concentrations of greenhouse gases. A doubling of carbon dioxide, by itself, adds only about one degree Celsius to greenhouse warming. Computer climate models project more warming because the modellers build in feedbacks from water vapour and clouds that amplify the initial change. These are the so called positive feedbacks. For example, higher temperature would mean more evaporation globally, which in turn means more heat-trapping water vapour is put into the atmosphere leading to even higher temperatures. On the other hand, negative feedbacks might prevail. For example, more water vapour in the atmosphere could lead to greater cloud cover. Clouds reflect the heat from the Sun and cool the Earth, offsetting the initial rise in global temperature. The role of negative feedback processes are played down by global warming alarmists, whereas sceptics point to the four-billion-year-old global climate record that shows runaway global cooling or warming has never occurred because negative feedbacks regulate the global climate system. It is important to consider the above in the proper context. Change is a constant feature of climate, even through recent human history. During the Medieval Warm Period, from 900 to 1200AD, the Vikings sailed in Arctic waters that by 1700 had turned to permanent sea ice, and farmed in Greenland soil in a climate that soon became too cold for agriculture. The Medieval Warm Period was followed by the Little Ice Age which ended around 1850. It in turn was followed by another warm period. The hottest year since 1850 was 1998. In the nine years since 2002 average annual global temperature has not risen. Most people are surprised to hear that no one has uncovered any empirical real-world evidence that humans are causing dangerous global warming. Finding this evidence is crucial, since scientific issues are resolved by observations that support a theory or hypothesis. They are not resolved by ballot.

## 1nr

### at: nextgen

#### Next Gen working now

AT ’12 (Aviation Today, “ FAA Releases Updated NextGen Implementation Plan”. March 22. http://www.aviationtoday.com/av/air-traffic-control/FAA-Releases-Updated-NextGen-Implementation-Plan\_76004.html)

In its annual NextGen Implementation Plan, FAA said it is "enthusiastic and confident" about the direction of its multibillion dollar Next Generation Air Transportation (NextGen) initiative, adding the agency has demonstrated steady and tangible progress in 2011 and expects more progress in 2012 and beyond. The report also responded to the NextGen Advisory Committee's (NAC) working group recommendations, issued in September.

"Even in the face of new challenges, the FAA remains confident about NextGen success. Given our history of overcoming difficulties, we are prepared to respond to any new obstacles," according to the report.

Going forward, FAA said it will focus on expanded surface data-sharing capabilities and the development of closely spaced parallel runways. During the 2013-2015 timeframe, FAA said it plans on developing and implementing mechanisms to provide National Airspace users with information about the current and future status of Special Activity Airspace, which is airspace set aside for military training and other specialized use, and leverage Automatic Dependent Surveillance-Broadcast (ADS-B) infrastructure for surface monitoring. Initial tower datacomm capability for revised departure clearance is expected in 2015; FAA is set to award the datacomm contract this summer.

Also, in 2012, FAA will initiate Surface Wide Information Management for surface data; publish FAA responses to Aviation Rulemaking Committee recommendations on ADS-B In; issue a final investment decision on ADS-B In; and work toward satellite navigation alternatives to ILS for dependent staggered approaches.

"Uncertainties and constraints increase the importance of managing NextGen with the skill and determination that such a complex system engineering project requires. We are making considerable progress on challenges that are malleable to management solutions," according to the report.

Among the 2011 highlights:

-- More than 300 Automatic Dependent Surveillance-Broadcast (ADS-B) ground stations were operational by the end of 2011. FAA said it expects the total complement of about 700 radio stations to be in place and operating by 2014.

-- FAA said it published 354 Wide Area Augmentation (WAAS) LPV procedures in 2011. As of February 2012, there were nearly 2,800 LPVs at more than 1,400 airports nationwide.

-- Also, the agency advanced the design phase of its metroplex initiative in two locations.

#### Empirical Resiliency

**Engardio 08** – senior writer for Business Week, (Pete, Is US Innovation Headed Offshore?, 5/7, Business Week)

To those worried about America's ability to compete in the 21st century, the trend is alarming: Just as key manufacturing industries fled offshore in the 1970s and '80s, U.S. companies are now shifting more engineering and design work to low-cost nations such as China, India, and Russia. Surely, innovation itself must follow. **Apparently not**, according to a new study published by the National Academies, the Washington organization that advises the U.S. government on science and technology policy. The 371-page report titled Innovation in Global Industries argues that, in sectors from software and semiconductors to biotech and logistics, **America's lead in creating new products and services has remained remarkably resilient over the past decade**—even as more research and development by U.S. companies is done offshore. "This is a good sign," says Georgetown University Associate Strategy Professor Jeffrey T. Macher, who co-edited the study with David C. Mowery of the University of California at Berkeley. "It means most of the value added is going to U.S. firms, and they are able to reinvest those profits in innovation." The report, a collection of papers by leading academics assessing the impact of globalization on inventive activity in 10 industries, won't reassure all skeptics that the globalization of production and R&D is good for the U.S. One drawback is that most of the conclusions are based on old data: In some cases the most recent numbers are from 2002. Exporting the Benefits? And while the authors of the report make compelling cases that U.S. companies are doing just fine, thank you, none of the writers addresses today's burning question: Is American tech supremacy thanks to heavy investments in R&D also benefiting U.S. workers? Or are U.S. inventions mainly creating jobs overseas? A few years ago, most people took it for granted that what was good for companies was good for the greater economy. But the flat growth in living standards for most Americans during the last boom has raised doubts over the benefits of globalization. "Innovation shouldn't be an end in itself for U.S. policy," says trade theorist Ralph E. Gomory, a research professor at New York University's Stern School of Business. "I think we have to address whether a country can run on innovation. If you just do R&D to enhance economic activity in other countries, you are getting very little out of it." Gomory, a former top IBM (IBM) executive, retired in 2007 as president of the Alfred P. Sloan Foundation, which funded the National Academies study. Still, given all the debate over offshoring, the report's central findings are interesting. The authors marshal a wealth of evidence to show that, thanks to innovation, globalization hasn't eroded U.S. leadership even in some industries where there has been a substantial offshore shift in engineering and design. Despite an explosion of outsourcing to India and Ireland, for example, America's software industry still trumps the rest of the world in exports of packaged software and services, patent activity, and venture capital investment. The U.S. also accounts for 90% of chip-design patents—the same level as 1991—although Asian companies now do most of manufacturing. And when it comes to biotechnology, the U.S. is way ahead, luring more venture capital than all other countries combined. America First The U.S. even remains a heavyweight in personal computers, the study says, though China and Taiwan manufacture most of the hardware. That's because the real innovation and profits still belong to companies like Microsoft (MSFT) and Intel (INTC), makers of the operating system and central processors, while U.S. brands command 40% of the global market and still define breakthrough design.

#### Multiple alt causes to competitiveness

**Bordoff et al., economics chair, 9** – Director of the Hamilton Project, an econ policy initiative @ Brookings [Jason, Lael Brainard is Vice President and Director of Brookings Global Economy and Development, and the holder of the Bernard L. Schwartz Chair in International Economics, Carola McGiffert, Senior Fellow at the Center for Strategic and International Studies, Isaac Sorkin is a Research Assistant in the Global Economy and Development program at Brookings, “STRENGTHENING AMERICAN COMPETITIVENESS: REGAINING OUR COMPETITIVE EDGE FOUR PRIORITIES AND 20 NEW IDEAS”, Feb, http://www.brookings.edu/~/media/Files/rc/reports/2009/02\_american\_competitiveness\_brainard/02\_american\_competitiveness\_brainard.pdf] cmr

A new agenda for action begins with a presidential vision for how the United States can regain its competitiveness by making a major investment in the American people, the tools they need to succeed and the safety nets that will help them manage transitions. **Health care reform, education, job training, innovation, infrastructure, and economic security are all critical components of** a forward-looking, integrated competitiveness agenda. Addressing our climate change challenge is also critical to longterm competitiveness, and indeed our efforts in every other policy area need to be consistent with meeting our climate objectives.

### 2nc overview

#### DA outweighs the case – Daniels says Hagel nomination is key to prevent violent military transitions that cause global nuclear conflict – the magnitude to the DA is larger

David Bosco (a senior editor at Foreign Policy magazine) July 2006 “Forum: Keeping an eye peeled for World War III” http://www.post-gazette.com/pg/06211/709477-109.stm

The understanding that small but violent acts can spark global conflagration is etched into the world's consciousness. The reverberations from Princip's shots in the summer of 1914 ultimately took the lives of more than 10 million people, shattered four empires and dragged more than two dozen countries into war. This hot summer, as the world watches the violence in the Middle East, the awareness of peace's fragility is particularly acute. The bloodshed in Lebanon appears to be part of a broader upsurge in unrest. Iraq is suffering through one of its bloodiest months since the U.S.-led invasion in 2003. Taliban militants are burning schools and attacking villages in southern Afghanistan as the United States and NATO struggle to defend that country's fragile government. Nuclear-armed India is still cleaning up the wreckage from a large terrorist attack in which it suspects militants from rival Pakistan. The world is awash in weapons, North Korea and Iran are developing nuclear capabilities, and long-range missile technology is spreading like a virus. Some see the start of a global conflict. "We're in the early stages of what I would describe as the Third World War," former House Speaker Newt Gingrich said recently. Certain religious Web sites are abuzz with talk of Armageddon. There may be as much hyperbole as prophecy in the forecasts for world war. But it's not hard to conjure ways that today's hot spots could ignite. Consider the following scenarios: Targeting Iran: As Israeli troops seek out and destroy Hezbollah forces in southern Lebanon, intelligence officials spot a shipment of longer-range Iranian missiles heading for Lebanon. The Israeli government decides to strike the convoy and Iranian nuclear facilities simultaneously. After Iran has recovered from the shock, Revolutionary Guards surging across the border into Iraq, bent on striking Israel's American allies. Governments in Syria, Jordan, Egypt and Saudi Arabia face violent street protests demanding retribution against Israel -- and they eventually yield, triggering a major regional war. Missiles away: With the world's eyes on the Middle East, North Korea's Kim Jong Il decides to continue the fireworks show he began earlier this month. But this time his brinksmanship pushes events over the brink. A missile designed to fall into the sea near Japan goes astray and hits Tokyo, killing a dozen civilians. Incensed, the United States, Japan's treaty ally, bombs North Korean missile and nuclear sites. North Korean artillery batteries fire on Seoul, and South Korean and U.S. troops respond. Meanwhile, Chinese troops cross the border from the north to stem the flow of desperate refugees just as U.S. troops advance from the south. Suddenly, the world's superpower and the newest great power are nose to nose. Loose nukes: Al-Qaida has had Pakistani President Pervez Musharraf in its sights for years, and the organization finally gets its man. Pakistan descends into chaos as militants roam the streets and the army struggles to restore order. India decides to exploit the vacuum and punish the Kashmir-based militants it blames for the recent Mumbai railway bombings. Meanwhile, U.S. special operations forces sent to secure Pakistani nuclear facilities face off against an angry mob. The empire strikes back: Pressure for democratic reform erupts in autocratic Belarus. As protesters mass outside the parliament in Minsk, president Alexander Lukashenko requests Russian support. After protesters are beaten and killed, they appeal for help, and neighboring Poland -- a NATO member with bitter memories of Soviet repression -- launches a humanitarian mission to shelter the regime's opponents. Polish and Russian troops clash, and a confrontation with NATO looms. As in the run-up to other wars, there is today more than enough tinder lying around to spark a great power conflict. The question is how effective the major powers have become at managing regional conflicts and preventing them from escalating. After two world wars and the decades-long Cold War, what has the world learned about managing conflict? The end of the Cold War had the salutary effect of dialing down many regional conflicts. In the 1960s and 1970s, every crisis in the Middle East had the potential to draw in the superpowers in defense of their respective client states. The rest of the world was also part of the Cold War chessboard. Compare the almost invisible U.N. peacekeeping mission in Congo today to the deeply controversial mission there in the early 1960s. (The Soviets were convinced that the U.N. mission was supporting a U.S. puppet, and Russian diplomats stormed out of several Security Council meetings in protest.) From Angola to Afghanistan, nearly every Cold War conflict was a proxy war. Now, many local crises can be handed off to the humanitarians or simply ignored. But the end of the bipolar world has a downside. In the old days, the two competing superpowers sometimes reined in bellicose client states out of fear that regional conflicts would escalate. Which of the major powers today can claim to have such influence over Tehran or Pyongyang? Today's world has one great advantage: None of the leading powers appears determined to reorder international affairs as Germany was before both world wars and as Japan was in the years before World War II. True, China is a rapidly rising power -- an often destabilizing phenomenon in international relations -- but it appears inclined to focus on economic growth rather than military conquest (with the possible exception of Taiwan). Russia is resentful about its fall from superpower status, but it also seems reconciled to U.S. military dominance and more interested in tapping its massive oil and gas reserves than in rebuilding its decrepit military. Indeed, U.S. military superiority seems to be a key to global stability. Some theories of international relations predict that other major powers will eventually band together to challenge American might, but it's hard to find much evidence of such behavior. The United States, after all, invaded Iraq without U.N. approval and yet there was not even a hint that France, Russia or China would respond militarily. There is another factor working in favor of great-power caution: nuclear weapons. Europe's leaders on the eve of World War I can perhaps be forgiven for not understanding the carnage they were about to unleash. That generation grew up in a world of short wars that did limited damage. Leaders today should have no such illusions. The installation of emergency hot lines between national capitals was a recognition of the need for fast and clear communication in times of crisis. Diplomatic tools have advanced too. Sluggish though it may be, the U.N. Security Council regularly gathers the great powers' representatives in a room to hash out developing crises. So there is reason to hope that the major powers have little interest in playing with fire and the tools to stamp it out. But complacency is dangerous. The British economist Norman Angell once argued persuasively that deep economic links made conflict between the great powers obsolete. His book appeared in 1910 and was still in shops when Europe's armies poured across their borders in 1914.

**Turns hegemony**

Financial Times December 27, 2012 “Hagel for defence” http://www.ft.com/intl/cms/s/0/ad8eba06-503d-11e2-9b66-00144feab49a.html#axzz2HH2u4ZZI

Yet ever since Mr Hagel emerged as the clear frontrunner, he has come under a barrage of criticism. Sadly, his critics have mostly overlooked his sensible views on the future of the US military and focused on some remarks he made several years ago about the “Jewish lobby”. These comments may have been ill-judged but there is nothing in Mr Hagel’s record on Israel that suggests bias or hostility, still less anti-Semitism. He has shown support for a two-state solution – which Israel also favours – and the necessity for the US to play an even-handed role in fostering it. The whispering campaign against him is obnoxious. By choosing Mr Hagel, Mr Obama would not just make a welcome bipartisan appointment. He would also show some political muscle. While he has not yet nominated Mr Hagel, the White House has floated his name for weeks. Were the US president to prompt Mr Hagel to withdraw his name now, it would signal a big retreat. It would also come just weeks after Susan Rice, US ambassador to the UN, stepped aside in the race for secretary of state despite being the president’s preferred candidate. Two successive withdrawals would send a message at home and abroad that Mr Obama lacks resolve.

#### Turns warming – Obama’s strength is vital for all future action on warming

**Green, 12** - reporter for The Daily Beast.(Miranda, “Is Washington Ready to Act on Climate Change?” The Daily Beast, 11/9, <http://www.thedailybeast.com/articles/2012/11/09/is-washington-ready-to-act-on-climate-change.html>)

In the first term, Obama tried to pass major environmental measures through Congress, with no success. His cap-and-trade bill in 2010 was one such failure. Originally heralded as a bipartisan bill, its lofty measures were meant to reward innovation while putting a strict cap on environmental emissions. It didn’t make it out of the Senate.“[Obama] made a few attempts at broad, sweeping legislation, such as cap and trade, and searching for a binding international treaty in Copenhagen, but both of those didn’t really succeed,” says Michael Brune, executive director of the Sierra Club. “So his administration shifted toward a piecemeal approach: regulating standards for vehicles, power plants, and pushing for the strengthening of clean air and water through the EPA.”

Environmental experts say the Environmental Protection Agency has been Obama’s saving grace—and still may be the only means by which he can stimulate climate awareness.

Established in 1970, the EPA legally allows the president to set standards and regulations to protect human health and the environment. During his first term, Obama used the agency to pass regulations under the Clean Air Act that determined fuel-efficiency standards for cars and also established mercury-pollution levels at power plants.

Going into his second term, President Obama is again likely facing opposition, but again can utilize the EPA to create new standards.

“With Romney-Ryan, we would have seen the EPA gutted and a rollback to the limit on pollution from coal plants and more oil drilling on public lands,” Brune says. “With Obama, we’ll probably see large-scale wilderness protection and I think we have a shot at being able to move away from extreme energy-source removal, like the tar sands and mountaintop mining.”

However, the EPA can only address energy issues from one direction. It can’t jumpstart growth in renewable-energy infrastructure or provide subsidies. In order to fully address the effects of climate change, the president would need to get Republican support—and this time around that support may actually be possible. One reason: many red states would benefit economically from the construction and growth of clean-energy infrastructure.

### link

#### Political landmines like the plan can derail the effort

Josh Levs (writer for CNN politics) 1/7, 2013 “Sparks could fly in Hagel confirmation hearings” http://www.cnn.com/2013/01/07/politics/hagel-defense/?hpt=hp\_t1

He would also be one of the few defense secretaries who was wounded at war, President Barack Obama said Monday, announcing his selection to take over for outgoing Defense Secretary Leon Panetta. If Hagel is confirmed, the president said, it will be "historic." But for Hagel, the road from nomination to confirmation is packed with obstacles -- political landmines that could derail the effort.

#### Capital’s finite—they assume demand to leverage

**Gerson, 12/17** (Michael, 12/17/10, Washington Post, “When it comes to politics, Obama's ego keeps getting in the way,” http://www.washingtonpost.com/wp-dyn/content/article/2010/12/16/AR2010121604039.html)

In some areas - such as education reform or the tax deal - Obama's governing practice is better than his political skills. But these skills matter precisely because **political capital is limited**. The early pursuit of ambitious health-care reform was a political mistake, as former chief of staff Rahm Emanuel internally argued. But every president has the right to spend his popularity on what he regards as matters of principle. Political risks, taken out of conviction with open eyes, are an admirable element of leadership.

Yet political errors made out of pique or poor planning undermine the possibility of achievement. Rather than being spent, popularity is squandered - something the Obama administration has often done.

**Not a win—randomly forcing bills through just looks misguided**

William GALSTON 11-4-10 [William, Senior Fellow, Governance Studies, Brookings, “President Barack Obama’s First Two Years: Policy Accomplishments, Political Difficulties” Brookings Institute -- Nov 4]

Second, the administration believed that success would breed success—that the momentum from one legislative victory would spill over into the next. The reverse was closer to the truth: with each difficult vote, it became harder to persuade Democrats from swing districts and states to cast the next one. In the event, House members who feared that they would pay a heavy price if they supported cap-and- trade legislation turned out to have a better grasp of political fundamentals than did administration strategists.

The legislative process that produced the health care bill was especially damaging. It lasted much too long and featured side-deals with interest groups and individual senators, made in full public view. Much of the public was dismayed by what it saw. Worse, the seemingly endless health care debate strengthened the view that the president’s agenda was poorly aligned with the economic concerns of the American people. Because the administration never persuaded the public that health reform was vital to our economic future, the entire effort came to be seen as diversionary, even anti-democratic. The health reform bill was surely a moral success; it may turn out to be a policy success; but it is hard to avoid the conclusion that it was—and remains—a political liability.

#### No turns – always polarizing

**Whitman, 12** (Christine Todd Whitman, CASEnergy Co-Chair, Former EPA Administrator and New Jersey Governor, National Journal Experts Blog, 8/13/12, <http://energy.nationaljournal.com/2012/08/finding-the-sweet-spot-biparti.php?comments=expandall~~%23comments>

It’s clear from the debate around the merits and drawbacks of various electricity and fuel sources that energy policy can be a highly polarizing topic. In fact, it’s arguable that there is no energy option that holds a truly bipartisan appeal: Every form of energy faces pockets of dissent. This makes crafting universally accepted energy policy particularly challenging.

#### Can’t get a win—requires massive PC investment

**Whatley, 12** (Michael Whatley is the executive vice president of Consumer Energy Alliance in Washington D.C, 10/30, <http://rigzone.com/iphone/article.asp?a_id=121729>)

Should Republicans hold the House, and Democrats hold the Senate, it will make it **exceedingly difficult** for any meaningful energy legislation to pass in the next two years, regardless of who wins the Presidency, Smaller legislative measures, including requisite funding for federal agencies, are likely, but a bipartisan movement to pass a comprehensive energy package is unlikely.

For the Obama administration, partisan gridlock in Congress would require the President to push his energy agenda through regulation. Potential items of his docket include efforts to expand federal regulation over hydraulic fracturing and to create new incentives or mandates for altemative fuel consumption, such as a low carbon fuel standard.

#### Can’t get a win, even if it’s popular

**Harder, 12** (Amy Harder, energy and environment reporter, National Journal, 8/13/12, <http://energy.nationaljournal.com/2012/08/finding-the-sweet-spot-biparti.php>

Which energy and environment policies garner bipartisan support? And what's holding Washington back from acting on them?

Numerous bills pending before Congress have widespread support from Democrats and Republicans in both chambers, including bills on energy efficiency, natural gas-powered vehicles, and toxic-chemicals reform. Yet even popular measures like these remain stalled.

What other measures have attracted broad, bipartisan support? What's holding back all these measures? Is there any common thread? What can Washington do to make progress on these issues while it remains gridlocked over more divisive issues, such as climate change and offshore oil and gas drilling?

### uniqueness

#### Every ounce of political capital is key to getting Hagel across the finish line

Scott Wong and Manu Raju (writers for Politico) 1/6, 2013 “Chuck Hagel takes fire from Capitol Hill” http://www.politico.com/story/2013/01/chuck-hagel-takes-fire-from-capitol-hill-85805.html?hp=t1

And despite heaping praise on Hagel when he retired from the Senate after the 2008 elections, Minority Leader Mitch McConnell (R-Ky.) on Sunday failed to extend an olive branch to the Nebraska Republican, instead suggesting there would be “tough questions” ahead. Even Senate Democrats are privately signaling they‘re not yet on board with the Hagel pick, and that the White House has a lot of work to do to get him across the finish line. The nomination comes at a tricky time for the White House — just as the fights over raising the debt ceiling and government appropriations are set to begin. And it could put a number of at-risk or pro-Israel Democrats in tough political spots — especially if the nomination fight grows even more contentious. Democrats are also scratching their heads over why Obama appears willing to go to the mat for Hagel, while abandoning his push for a close friend and member of his inner circle, U.N. Ambassador Susan Rice, to become secretary of state. Rice, an unabashed Democrat, abandoned her bid after withering GOP criticism over the deadly attacks on the U.S. consulate in Libya. Though different in substance, the controversy over Rice’s remarks is not unlike the current pushback over Hagel’s past foreign policy positions and controversial remarks. “It is a strange signal for the White House to send that they are willing to fight for Hagel but not Rice,” one Senate Democratic aide said Sunday. “Democrats are not currently unified behind Hagel, and it will take some real work by the administration to get them there, if it’s even possible.” Senior Republicans agreed, noting that after Hagel infuriated Republicans and Democrats alike over the years, there isn’t a natural base for him. “I can’t imagine why [Obama] would choose to burn his political capital on this nomination. For what? There is no constituency for Chuck Hagel,” said one senior GOP aide. “Obama will expend every ounce of political capital he has to get him across the finish line. Dems will hate this.”

#### must be in senators good graces to get nomination

CSM (Christian Science Monitor) January 7, 2013 “Chuck Hagel: why Obama is using political capital on Pentagon pick” http://www.csmonitor.com/USA/Politics/2013/0107/Chuck-Hagel-why-Obama-is-using-political-capital-on-Pentagon-pick-video

Now that Hagel has been nominated for the Pentagon, it is crucial that the next stage – courtesy calls to key Senate members – goes well. It is especially imperative that he reassure senators on his commitment to Israel. On Sunday, senior White House officials reached out to key American Jewish interest groups and sought to address any concerns about Hagel, according to CNN. And on Monday, various Jewish groups put out statements of support for Hagel. However the biggest and most powerful of the pro-Israel groups – the American Israel Public Affairs Committee, or AIPAC – so far has not put out a statement. Other aspects of the timing of Hagel’s nomination also matter. Obama just burned some political capital in getting through the Jan. 1 “fiscal cliff” deadline, in which he got the Republicans to concede on tax hikes for the wealthy. Three more fiscal cliffs loom – on spending cuts, the debt ceiling, and on short-term federal spending – and he will have less leverage than he did last week. So it may seem curious that he has chosen to embark on a tough confirmation fight amid all these other battles. But the same question must be asked of the Republicans: Why use up political capital over a Defense pick that most people outside the beltway don’t care about? Capitol Hill Republicans already have a bad public image, and with all the other battles looming, they may decide to let this one go. Traditionally, with some exceptions, senators allow presidents to have the Cabinet they want.

### co2

#### CO2 increases are inevitable because of human exhalations

**Lovelock ‘9**, Consultant of NASA, former president of the Marine Biological Association, and Honorary Visiting Fellow of Green Templeton College, Oxford (James, The Vanishing Face of Gaia: A Final Warning: Enjoy it While You Can, 74-75)

It is surprising that politicians could have been so unwise as to agree on policies many decades ahead. Perhaps there were voics from scientists who warned of the absurdity of such planning, but if so they do not seem to have head. Even if we cut emissions by 60 percent to 12 gigatons a year, it wouldn't be enough. I have mentioned several times before that breathing is a potent source of carbon dioxide, but did you know that the exhalations of breath and other gaseous emissions by the nearly 7 billion people on Earth, their pets, and their livestock are responsible for 23 percent of all greenhouse gas emissions? If you add on the fossil fuel burnt in total activity of growing, gathering, selling, and serving food, all of this adds up to about half of all carbon dioxide emissions. Think of farm machinery, the transport of food from the farms, and the transport of fertilizer, pesticides, and the fuel used in their manufacture; the road building and maintenance; super-market operation and the packaging industry; to say nothing of the energy used in cooking, refrigerating, and serving food. As if this were not enough, think of how farmland fails to serve Gaia as the forests it replaced did. If, just by living with our pets and livestock, we are responsible for nearly half the emissions of carbon dioxide, I do not see how the 60 percent reduction can be achieved without a great loss of life. Like it or not, we are the problem--and as a part of the Earth system, not as something separate from and above it. When world leaders ask us to follow them to the inviting green pastures ahead, they should first check that it really is grass on solid ground and not moss covering a quagmire. The only near certain conclusion we can draw from the changing climate and people's response to it is that there is little time left in which to act. Therefore my plea is that adaptation is made at least equal in importance to policy-driven attempts to reduce emissions. We cannot continue to assume that because there is no way gently to reduce our numbers it is sufficient merely to improve our carbon footprints. Too many also think only of the profit to be made from carbon trading. it is not the carbon footprint alone that harms the Earth; the people's footprint is larger and more deadly.

**Warming tipping points inevitable – too late**

**NPR 9** (1/26, Global Warming Is Irreversible, Study Says, All Things Considered, http://www.npr.org/templates/story/story.php?storyId=99888903)

Climate change is essentially irreversible, according to a sobering new scientific study.

As carbon dioxide emissions continue to rise, the world will experience more and more long-term environmental disruption. The damage will persist even when, and if, emissions are brought under control, says study author Susan Solomon, who is among the world's top climate scientists.

"We're used to thinking about pollution problems as things that we can fix," Solomon says. "Smog, we just cut back and everything will be better later. Or haze, you know, it'll go away pretty quickly."

That's the case for some of the gases that contribute to climate change, such as methane and nitrous oxide. But as Solomon and colleagues suggest in a new study published in the Proceedings of the National Academy of Sciences, it is not true for the most abundant greenhouse gas: carbon dioxide. **Turning off the carbon dioxide emissions won't stop global warming**.

"People have imagined that if we stopped emitting carbon dioxide that the climate would go back to normal in 100 years or 200 years. What we're showing here is that's not right. It's essentially an irreversible change that will last for more than a thousand years," Solomon says.

This is because the oceans are currently soaking up a lot of the planet's excess heat — and a lot of the carbon dioxide put into the air. The carbon dioxide and heat will eventually start coming out of the ocean. And that will take place for many hundreds of years.

Solomon is a scientist with the National Oceanic and Atmospheric Administration. Her new study looked at the consequences of this long-term effect in terms of sea level rise and drought.

**It’s too late—deal with it**

**Dickinson 9** (Pete, Global warming: Is it too late?, 26 August 2009, http://www.socialistalternative.org/news/article19.php?id=1142, AMiles) Note – paper cited is by Susan Solomon - atmospheric chemist working for the National Oceanic and Atmospheric Administration – Gian-Kasper Plattnerb- Group, Institute of Geophysics and Planetary Physics, UCLA - Reto Knuttic - Institute for Atmopsheric and Climate Science, PhD

New research is claiming that concentrations of carbon dioxide (the main greenhouse gas, CO2) will remain high for at least 1,000 years, even if greenhouse gases are eliminated in the ne xt few decades. The climate scientists who produced this work assert that the effects of global warming, such as high sea levels and reduced rainfall in certain areas, will also persist over this time scale. (The findings are in a paper published in February in the Proceedings of the National Academy of Sciences by researchers from the USA, Switzerland and France, www.pnas.org/cgi/doi/10.1073/pnas.0812721106 ) Most previous estimates of the longevity of global warming effects, after greenhouse gases were removed, have ranged from a few decades to a century, so this new analysis could represent a development with very serious implications, including political ones. For example, those campaigning for action on climate change could be disheartened and climate sceptics could opportunistically say that nothing should be done **because it is now too late.** The authors of the paper make various estimates of CO2 concentrations based on the year emissions are cut, assumed to be from 2015 to 2050. They make optimistic assumptions, for instance, that emissions are cut at a stroke rather than gradually, and that their annual rate of growth before cut-off is 2%, not the 3% plus witnessed from 2000-05. They then estimate what the effects would be on surface warming, sea level rise and rainfall over a 1,000-year period using the latest climate models. The results of the melting of the polar ice caps are not included in the calculations of sea levels, only the expansion of the water in the oceans caused by the surface temperature increase so, as the authors point out, the actual new sea level will be much higher. The best-case results for surface warming, where action is taken in 2015 to eliminate emissions, show that over 1,000 years the temperature rises from 1.3 to 1.0 degree centigrade above pre-industrial levels. The worst case, where action is delayed to 2050, predicts surface temperatures will increase from just under to just over four degrees by 2320 and then remain approximately constant for the rest of the millennium. High levels of CO2 persist in the atmosphere because, over long timescales, reduction of the gas is dependent on the ability of the oceans to absorb it, but there are limits to this due to the physics and chemistry of deep-ocean mixing. On the other hand, the amount of heat in the atmosphere that can be absorbed by the sea, the key way surface temperatures are decreased, is limited by the same scientific laws. As a result, carbon concentrations cannot fall enough to force temperatures down while there is simultaneously reduced cooling due to limited heat loss to the oceans.

**Past emissions overwhelm**

**Adve 8** Adve, One World South Asia News, 2008 [Nagraj Adve, April 23 2008, One World South Asia, “Can we avoid ‘dangerous’ global warming?”, < http://southasia.oneworld.net/Article/can-we-avoid-2018dangerous2019-global-warming/>]

As a consequence, the Earth’s average temperature has risen about 0.8 degrees C since the Industrial Revolution, reaching 14.5 degrees C in 2005. This seemingly mild rise has already caused lands to be nibbled by rising sea levels in the Sunderbans and the Gujarat coast, the 2005 floods in Bombay which killed a thousand people, Himalayan glaciers to recede, and rainfall patterns to change. According to the UN, 66 million people were affected by floods this year in South Asia alone. What used to seem ‘natural’ phenomena are not natural any more, as Bill McKibben lamented in The End of Nature nearly 20 years ago. The problem, as Paul Brown explains in Global Warming: The Last Chance for Change, is that there’s more warming in the pipeline. There’s a lag of about 25-30 years between greenhouse gases being emitted and the full effects of their warming. So the recent climate chaos is actually the consequence of emissions in the late 1970s. The full effects of more recent emissions, including from China’s coal-based power stations

that some are suddenly and rightly concerned about, will be felt in the years to come. We are committed, Brown writes, to a further 0.7 degrees C. That would add up to 1.5 degrees C above pre-industrial levels. At 1.5 degrees, 18% of the world’s species will die, and 400 million more people worldwide will be exposed to water stress. It gets worse. As the Earth gets warmer, it will trigger off certain ‘feedbacks’, which could be understood as the Earth’s systems themselves contributing to warming: as Arctic ice melts, there will be less of it to reflect heat, warming further, melting more, and so on.

## 2nr

### 2nr t card

#### More ev

**AOPA 12**

http://www.aopa.org/advocacy/articles/2012/120126faa-issues-notice-on-airborne-wind-energy-systems.html

FAA issues notice of policy on new airborne wind energy systems

By Dan Namowitz

The FAA is asking for public participation as it integrates an emerging technology known as airborne wind energy systems (AWES) into the National Airspace System.

The agency will accept public comments until Feb. 6 on AWES, which it describes in a [notice](http://www.gpo.gov/fdsys/pkg/FR-2011-12-07/pdf/2011-31430.pdf) of policy published Dec. 7, 2011, as “mechanical devices that are moored to the ground, via a tether, for the purpose of capturing the fluid stream kinetic energy of winds.”

The FAA undertook the examination, it said, as a result of an increased focus by industry and science on sources of renewable energy, including wind power. The agency said it had been approached by “various entities” including wind energy researchers who are designing ways to harness the “more sustained and consistent winds at higher altitudes where conventional ground-based [wind turbines](http://www.aopa.org/advocacy/articles/2012/120126faa-issues-notice-on-airborne-wind-energy-systems.html) cannot reach.”

FAA policy for AWES would [apply](http://www.aopa.org/advocacy/articles/2012/120126faa-issues-notice-on-airborne-wind-energy-systems.html) to the testing phase of AWES below 500 feet, and would apply Part 77 regulations (Safe, Efficient Use, and Preservation of Navigable Airspace) that apply to other obstructions, such as radio towers.

The notice of policy also requires that AWES be made conspicuous to the flying public as outlined in Advisory Circular 70/7460-1, “Obstruction marking and Lighting.” The advisory circular does not specifically apply to the devices, but could serve as a guideline.

# doubles neg v. liberty ab

## 1nc

### 1nc revolution pik

#### Use of the term “revolution” uniquely asserts a claim over its meaning, which is bound up with past historical revolutions and signifies a radical break with the prior edifices of power

**Coombs ’11** Nathan, PhD candidate in Political Philosophy at Royal Holloway, University of London “Political Semantics of the Arab Revolts/Uprisings/Riots/ Insurrections/Revolutions” Journal of Critical Globalisation Studies , Issue 4 (2011) http://www.criticalglobalisation.com/Issue4/138\_146\_POLITICAL\_SEMANTICS\_JCGS4.pdf

But why exactly is the term ‘revolution’ so politically-charged in comparison to others such as ‘revolt’, ‘uprising’, ‘riot’ or ‘insurrection’? Let us propose that it is because of all the above terms, ‘revolution’ is the one that implies the deepest content . **It does not** simply **describe mass political actions**, crowds on the street, or governments falling. **Instead, it announces** an **affirmation of the** systematic overhaul **of** existing socio-economic conditions, within which the popular mobilisation plays an essential role even while it remains insufficient to represent the overhaul itself (this, at least, is the French revolutionary and Marxist conception—and even non-Marxist revolutionaries would like to maintain its potency of implication). Thus, the question moves. Once the innocuous language of ‘revolts/uprisings/riots/insurrections’ is delineated from the more affective term ‘revolution’, **the ideological divide between the two vocabularies becomes an expression of the hermeneutic claim over ‘revolution’**, which is necessarily bound up with the continuities and ruptures of the 20th century’s revolutionary and anti-revolutionary sequences.

#### This claim as it occurs neutrally is simply a re-assertion of change for its own sake, which ideologically underpins the consolidations of hegemonic apparatuses of economic power

**Coombs ’11** Nathan, PhD candidate in Political Philosophy at Royal Holloway, University of London “Political Semantics of the Arab Revolts/Uprisings/Riots/ Insurrections/Revolutions” Journal of Critical Globalisation Studies , Issue 4 (2011) <http://www.criticalglobalisation.com/Issue4/138_146_POLITICAL_SEMANTICS_JCGS4.pdf\>

What does this formal theorisation of ‘revolution’ reveal? It demonstrates that if revolution is perceived to have reached an end, we need to take that not literally to mean that there are no longer any revolutions, as in the phenomena of an act of a revolutionary uprising, or the toppling of a government. It is rather that once revolutions no longer take place within the sequence of Marxism, or in the context of any new sequence, the term collapses to its non-subjective definition. As Lazarus (2007, pp. 262-263) concludes: “Revolution… belongs as a category to the historicism that is fuelled by both defunct socialism and parliamentarianism,” because, “historicism keeps a place for the word ‘revolution’ ... in post-socialist parliamentarianism following the fall of the Berlin Wall.” We are now in a position to understand the relation of ‘Marxism’ to ‘revolution’ and to ‘event’. If Marxism was the sequence which created an event horizon dividing subjects and non-subjects across the 20th century, it is only from a position subjectively inside that event horizon that we can talk of a ‘last revolution’—as Badiou, a Maoist, considers the Chinese Cultural Revolution. Only as part of that sequence does his theory of the event make any sense. Take away revolution, and all your are left with is the idea of the event in its subtracted purity: Rx’ = {Rx, ex} Thus we have to repudiate Nicolapoulos and Vassilacopolous’ charge of Badiou’s infidelity to the retreat of the revolutionary event; on the contrary, on the event horizon of the Marxist sequence, Badiou’s theory of the event can only make sense within the retreat of that revolutionary sequence. As Badiou (2005, p.483) puts it: “**the word itself lies at the heart of the saturation.” The idea of the event is hermeneutically situated in the context of the contemporary retreat of revolutions containing novelty, and hence** for those subjectivated to the 20th century’s sequence, **the events**, for instance, **in the Eastern** and Central **European** anti-Soviet **uprisings of the late 1980s, are not revolutions insofar as all they did was end up affirming a** pre-existing global, capitalist status quo and normalising their political and economic regimes within it.

### 1nc framework

#### The resolution exists to ensure controversy—testable, specific propositions ensure mutual, contestable ground

**Steinberg & Freeley 8** \*Austin J. Freeley is a Boston based attorney who focuses on criminal, personal injury and civil rights law, AND \*\*David L. Steinberg , Lecturer of Communication Studies @ U Miami, Argumentation and Debate: Critical Thinking for Reasoned Decision Making pp45-

Debate is a means of settling differences, so there must be a difference of opinion or a conflict of interest before there can be a debate. If everyone is in agreement on a tact or value or policy, there is no need for debate: the matter can be settled by unanimous consent. Thus, for example, it would be pointless to attempt to debate "Resolved: That two plus two equals four," because there is simply no controversy about this statement. (Controversy is an essential prerequisite of debate. Where there is no clash of ideas, proposals, interests, or expressed positions on issues, there is no debate. In addition, debate cannot produce effective decisions without clear identification of a question or questions to be answered. For example, general argument may occur about the **broad topic** of illegal immigration. How many illegal immigrants are in the United States? What is the impact of illegal immigration and immigrants on our economy? What is their impact on our communities? Do they commit crimes? Do they take jobs from American workers? Do they pay taxes? Do they require social services? Is it a problem that some do not speak English? Is it the responsibility of employers to discourage illegal immigration by not hiring undocumented workers? Should they have the opportunity- to gain citizenship? Docs illegal immigration pose a security threat to our country? Do illegal immigrants do work that American workers are unwilling to do? Are their rights as workers and as human beings at risk due to their status? Are they abused by employers, law enforcement, housing, and businesses? I low are their families impacted by their status? What is the moral and philosophical obligation of a nation state to maintain its borders? Should we build a wall on the Mexican border, establish a national identification can!, or enforce existing laws against employers? Should we invite immigrants to become U.S. citizens? Surely you can think of many more concerns to be addressed by a conversation about the topic area of illegal immigration. Participation in this "debate" is likely to be emotional and intense. However, it is not likely to be productive or useful without focus on a particular question and identification of a line demarcating sides in the controversy. To be discussed and resolved effectively, controversies must be stated clearly. **Vague understanding** results in unfocused deliberation and poor decisions, frustration, and emotional distress, as evidenced by the failure of the United States Congress to make progress on the immigration debate during the summer of 2007.

Someone disturbed by the problem of the growing underclass of poorly educated, socially disenfranchised youths might observe, "Public schools are doing a terrible job! They are overcrowded, and many teachers are poorly qualified in their subject areas. Even the best teachers can do little more than struggle to maintain order in their classrooms." That same concerned citizen, facing a complex range of issues, might arrive at an unhelpful decision, such as "We ought to do something about this" or. worse. "It's too complicated a problem to deal with." Groups of concerned citizens worried about the state of public education could join together to express their frustrations, anger, disillusionment, and emotions regarding the schools, but without a focus for their discussions, they could easily agree about the sorry state of education **without** finding points of clarity or potential solutions. A gripe session would follow. But if a precise question is posed—such as "What can be done to improve public education?"—then a more profitable area of discussion is opened up simply by placing a focus on the search for a concrete solution step. One or more judgments can be phrased in the form of debate propositions, motions for parliamentary debate, or bills for legislative assemblies. The statements "Resolved: That the federal government should implement a program of charter schools in at-risk communities" and "Resolved: That the state of Florida should adopt a school voucher program" more clearly identify specific ways of dealing with educational problems in a manageable form, suitable for debate. They provide specific policies to be investigated and aid discussants in identifying points of difference.

To have a productive debate, which facilitates effective decision making by directing and placing limits on the decision to be made, the basis for argument should be clearly defined. If we merely talk about "homelessness" or "abortion" or "crime'\* or "global warming" we are likely to have an interesting discussion but not to establish profitable basis for argument. For example, the statement "Resolved: That the pen is mightier than the sword" is debatable, yet fails to provide much basis for clear argumentation. If we take this statement to mean that the written word is more effective than physical force for some purposes, we can identify a problem area: the comparative effectiveness of writing or physical force for a specific purpose.

Although we now have a general subject, we have not yet stated a problem. It is still too broad, too loosely worded to promote well-organized argument. What sort of writing are we concerned with—poems, novels, government documents, website development, advertising, or what? What does "effectiveness" mean in this context? What kind of physical force is being compared—fists, dueling swords, bazookas, nuclear weapons, or what? A more specific question might be. "Would a mutual defense treaty or a visit by our fleet be more effective in assuring Liurania of our support in a certain crisis?" The basis for argument could be phrased in a debate proposition such as "Resolved: That the United States should enter into a mutual defense treatv with Laurania." Negative advocates might oppose this proposition by arguing that fleet maneuvers would be a better solution. This is not to say that debates should completely avoid creative interpretation of the controversy by advocates, or that good debates cannot occur over competing interpretations of the controversy; in fact, these sorts of debates may be very engaging. The point is that debate is best facilitated by the guidance provided by **focus on a particular point of difference**, which will be outlined in the following discussion.

#### That prior subject is key—deliberation requires it to facilitate clash

Adolf G. **Gundersen,** Associate Professor of Political Science, Texas A&M, **2000**

POLITICAL THEORY AND PARTISAN POLITICS, 2000, p. 104-5. (DRGNS/E625)

Indirect political engagement is perhaps the single most important element of the strategy I am recommending here. It is also the most emblematic, as it results from a fusion of confrontation and separation. But what kind of political engagement might conceivably qualify as being both confrontational and separated from actual political decision-making? There is only one type, so far as I can see, and that is deliberation. Political deliberation is by definition a form of engagement with the collectivity of which one is a member. This is all the more true when two or more citizens deliberate together. Yet deliberation is also a form of political action that **precedes the actual** taking and **implementation** of decisions. It is thus simultaneously connected and disconnected, confrontational and separate. It is, in other words, a form of indirect political engagement. This conclusion, namely, that we ought to call upon deliberation to counter partisanship and thus clear the way for deliberation, looks rather circular at first glance. And, semantically at least, it certainly is. Yet this ought not to concern us very much. Politics, after all, is not a matter of avoiding semantic inconveniences, but of doing the right thing and getting desirable results. In political theory, therefore, the real concern is always whether a circular argument translates into a self-defeating prescription. And here that is plainly not the case, for what I am suggesting is that deliberation can diminish partisanship, which will in turn contribute to conditions amenable to continued or extended deliberation. That "deliberation promotes deliberation" is surely a circular claim, but it is just as surely an accurate description of the real world of lived politics, as observers as far back as Thucydides have documented. It may well be that deliberation rests on certain preconditions. I am not arguing that there is no such thing as a deliberative "first cause." Indeed, it seems obvious to me both that deliberators **require something to deliberate about and that** deliberation **presumes certain institutional structures** and shared values. Clearly something must get the deliberative ball rolling and, to keep it rolling, the cultural terrain must be free of deep chasms and sinkholes. Nevertheless, however extensive and demanding deliberation's preconditions might be, we ought not to lose sight of the fact that, once begun, deliberation tends to be self-sustaining. Just as partisanship begets partisanship, deliberation begets deliberation. If that is so, the question of limiting partisanship and stimulating deliberation are to an important extent the same question.

#### This is key to a dialogic format—resolutional criticism is the role of the neg—monopolizing that prevents meaningful relationship and creates de facto monologue

**Galloway 7** – professor of communications at Samford University (Ryan, “Dinner And Conversation At The Argumentative Table: Reconceptualizing Debate As An Argumentative Dialogue”, Contemporary Argumentation and Debate, Vol. 28 (2007), ebsco)

Debate as a dialogue sets an argumentative table, where all parties receive a relatively fair opportunity to voice their position. Anything that fails to allow participants to have their position articulated denies one side of the argumentative table a fair hearing. The affirmative side is set by the topic and fairness requirements. While affirmative teams have recently resisted affirming the topic, in fact, the topic selection process is rigorous, taking the relative ground of each topic as its central point of departure.¶ Setting the affirmative reciprocally sets the negative. The negative crafts approaches to the topic consistent with affirmative demands. The negative crafts disadvantages, counter-plans, and critical arguments premised on the arguments that the topic allows for the affirmative team. According to fairness norms, each side sits at a relatively balanced argumentative table.¶ When one side takes more than its share, competitive equity suffers. However, it also undermines the respect due to the other involved in the dialogue. When one side excludes the other, it fundamentally denies the personhood of the other participant (Ehninger, 1970, p. 110). A pedagogy of debate as dialogue takes this respect as a fundamental component. A desire to be fair is a fundamental condition of a dialogue that takes the form of a demand for equality of voice. **Far from** being **a banal request for links** to a disadvantage, fairness is a demand for respect, a demand to be heard, a demand that a voice backed by literally months upon **months of preparation**, research, and critical thinking not be silenced.¶ Affirmative cases that suspend basic fairness norms **operate to exclude** particular negative strategies. Unprepared, one side comes to the argumentative table unable to meaningfully participate in a dialogue. They are unable to “understand what ‘went on…’” and are left to the whims of time and power (Farrell, 1985, p. 114). Hugh Duncan furthers this line of reasoning:¶ Opponents not only tolerate but honor and respect each other because in doing so they enhance their own chances of thinking better and reaching sound decisions. Opposition is necessary because it sharpens thought in action. We assume that argument, discussion, and talk, among free an informed people who subordinate decisions of any kind, because it is only through such discussion that we reach agreement which binds us to a common cause…If we are to be equal…relationships among equals must find expression in many formal and informal institutions (Duncan, 1993, p. 196-197).¶ **Debate compensates for the exigencies of the world by offering a framework that maintains equality for the sake of the conversation** (Farrell, 1985, p. 114).¶ For example, an affirmative case on the 2007-2008 college topic might defend neither state nor international action in the Middle East, and yet claim to be germane to the topic in some way. The case essentially denies the arguments that state action is oppressive or that actions in the international arena are philosophically or pragmatically suspect. Instead of allowing for the dialogue to be modified by the interchange of the affirmative case and the negative response, the affirmative subverts any meaningful role to the negative team, preventing them from offering effective “counter-word” and undermining the value of a meaningful exchange of speech acts. **Germaneness and other substitutes for topical action do not accrue the dialogical benefits** of topical advocacy.

#### Dialogic games are superior to polemical advocacy—the point isn’t to enforce rules, it’s to balance minimal preconditions for competition—their rush to a moral high ground is an attempt to make debate a lecture

**Hanghoj 2008** – PhD, assistant professor, School of Education, University of Aarhus, also affiliated with the Danish Research Centre on Education and Advanced Media Materials, located at the Institute of Literature, Media and Cultural Studies at the University of Southern Denmark (Thorkild, http://static.sdu.dk/mediafiles/Files/Information\_til/Studerende\_ved\_SDU/Din\_uddannelse/phd\_hum/afhandlinger/2009/ThorkilHanghoej.pdf)

Debate games are often based on pre-designed scenarios that include descriptions of issues to be debated, educational goals, game goals, roles, rules, time frames etc. In this way, debate games differ from textbooks and everyday classroom instruction as debate scenarios allow teachers and students to actively imagine, interact and communicate within a domain-specific game space. However, instead of mystifying debate games as a “magic circle” (Huizinga, 1950), I will try to overcome the epistemological dichotomy between “gaming” and “teaching” that tends to dominate discussions of educational games. In short, educational gaming is a form of teaching. As mentioned, education and games represent two different semiotic domains that both embody the three faces of knowledge: assertions, modes of representation and social forms of organisation (Gee, 2003; Barth, 2002; cf. chapter 2). In order to understand the interplay between these different domains and their interrelated knowledge forms, I will draw attention to a central assumption in Bakhtin’s dialogical philosophy. According to Bakhtin, all forms of communication and culture are subject to centripetal and centrifugal forces (Bakhtin, 1981). A centripetal force is the drive to impose one version of the truth, while a centrifugal force involves a range of possible truths and interpretations. This means that any form of expression involves a duality of centripetal and centrifugal forces: “Every concrete utterance of a speaking subject serves as a point where centrifugal as well as centripetal forces are brought to bear” (Bakhtin, 1981: 272). If we take teaching as an example, it is always affected by centripetal and centrifugal forces in the on-going negotiation of “truths” between teachers and students. In the words of Bakhtin: “Truth is not born nor is it to be found inside the head of an individual person, it is born between people collectively searching for truth, in the process of their dialogic interaction” (Bakhtin, 1984a: 110). Similarly, the dialogical space of debate games also embodies centrifugal and centripetal forces. Thus, the election scenario of The Power Game involves centripetal elements that are mainly determined by the rules and outcomes of the game, i.e. the election is based on a limited time frame and a fixed voting procedure. Similarly, the open-ended goals, roles and resources represent centrifugal elements and create virtually endless possibilities for researching, preparing, presenting, debating and evaluating a variety of key political issues. Consequently, the actual process of enacting a game scenario involves a complex negotiation between these centrifugal/centripetal forces that are inextricably linked with the teachers and students’ game activities. In this way, the enactment of The Power Game is a form of teaching that combines different pedagogical practices (i.e. group work, web quests, student presentations) and learning resources (i.e. websites, handouts, spoken language) within the interpretive frame of the election scenario. Obviously, tensions may arise if there is too much divergence between educational goals and game goals. This means that game facilitation requires a balance between focusing too narrowly on the rules or “facts” of a game (centripetal orientation) and a focusing too broadly on the contingent possibilities and interpretations of the game scenario (centrifugal orientation). For Bakhtin, the duality of centripetal/centrifugal forces often manifests itself as a dynamic between “monological” and “dialogical” forms of discourse. Bakhtin illustrates this point with the monological discourse of the Socrates/Plato dialogues in which the teacher never learns anything new from the students, despite Socrates’ ideological claims to the contrary (Bakhtin, 1984a). Thus, discourse becomes monologised when “someone who knows and possesses the truth instructs someone who is ignorant of it and in error”, where “a thought is either affirmed or repudiated” by the authority of the teacher (Bakhtin, 1984a: 81). In contrast to this, dialogical pedagogy fosters inclusive learning environments that are able to expand upon students’ existing knowledge and collaborative construction of “truths” (Dysthe, 1996). At this point, I should clarify that Bakhtin’s term “dialogic” is both a descriptive term (all utterances are per definition dialogic as they address other utterances as parts of a chain of communication) and a normative term as dialogue is an ideal to be worked for against the forces of “monologism” (Lillis, 2003: 197-8). In this project, I am mainly interested in describing the dialogical space of debate games. At the same time, I agree with Wegerif that “one of the goals of education, perhaps the most important goal, should be dialogue as an end in itself” (Wegerif, 2006: 61).

#### This isn’t a utopian vision of civil society. Rather, it’s a call to make convictions debatable in a reciprocal format

**Gutmann and Thompson 1996** – \*president of Penn, former professor at Princeton, \*\* Alfred North Whitehead Professor of Political Philosophy at Harvard (Amy and Dennis, “Democracy and disagreement”, p. 1)

OF THE CHALLENGES that American democracy faces today, none is more formidable than the problem of moral disagreement. Neither the theory nor the practice of democratic politics has so far found an adequate way to cope with conflicts about fundamental values. We address the challenge of moral disagreement here by developing a conception of democracy that secures a central place for moral discussion in political life.

Along with a growing number of other political theorists, we call this conception deliberative democracy. The core idea is simple: when citizens or their representatives disagree morally, they should continue to reason together to reach mutually acceptable decisions. But the meaning and implications of the idea are complex. Although the idea has a long history, it is still in search of a theory. We do not claim that this book provides a comprehensive theory of deliberative democracy, but we do hope that it contributes toward its future development by showing the kind of delib-eration that is possible and desirable in the face of moral disagreement in democracies.

Some scholars have criticized liberal political theory for neglecting moral deliberation. Others have analyzed the philosophical foundations of deliberative democracy, and still others have begun to explore institutional reforms that would promote deliberation. Yet nearly all of them stop at the point where deliberation itself begins. None has systematically examined the substance of deliberation—the theoretical principles that should guide moral argument and their implications for actual moral disagreements about public policy. That is our subject, and it takes us into the everyday forums of democratic politics, where moral argument regularly appears but where theoretical analysis too rarely goes.

Deliberative democracy involves reasoning about politics, and nothing has been more controversial in political philosophy than the nature of reason in politics. We do not believe that these controversies have to be settled before deliberative principles can guide the practice of democracy. Since on occasion citizens and their representatives already engage in the kind of reasoning that those principles recommend, deliberative democracy simply asks that they do so more consistently and comprehensively. The best way to prove the value of this kind of reasoning is to show its role in arguments about specific principles and policies, and its contribution to actual political debates. That is also ultimately the best justification for our conception of deliberative democracy itself. But to forestall possible misunderstandings of our conception of deliberative democracy, we offer some preliminary remarks about the scope and method of this book.

The aim of the moral reasoning that our deliberative democracy pre-scribes falls between impartiality, which requires something like altruism, and prudence, which demands no more than enlightened self-interest. Its first principle is reciprocity, the subject of Chapter 2, but no less essential are the other principles developed in later chapters. When citizens reason reciprocally, they seek fair terms of social cooperation for their own sake; they try to find mutually acceptable ways of resolving moral disagreements.

The precise content of reciprocity is difficult to determine in theory, but its general countenance is familiar enough in practice. It can be seen in the difference between acting in one's self-interest (say, taking advantage of a legal loophole or a lucky break) and acting fairly (following rules in the spirit that one expects others to adopt). In many of the controversies dis-cussed later in the book, the possibility of any morally acceptable resolution depends on citizens' reasoning beyond their narrow self-interest and considering what can be justified to people who reasonably disagree with them. Even though the quality of deliberation and the conditions under which it is conducted are far from ideal in the controversies we consider, the fact that in each case some citizens and some officials make arguments consistent with reciprocity suggests that a deliberative perspective is not Utopian.

To clarify what reciprocity might demand under non-ideal conditions, we develop a distinction between deliberative and nondeliberative disa-greement. Citizens who reason reciprocally can recognize that a position is worthy of moral respect even when they think it morally wrong. They can believe that a moderate pro-life position on abortion, for example, is morally respectable even though they think it morally mistaken. (The abortion example—to which we often return in the book—is meant to be illustrative. For readers who deny that there is any room for deliberative disagreement on abortion, other political controversies can make the same point.) The presence of deliberative disagreement has important implications for how citizens treat one another and for what policies they should adopt. When a disagreement is not deliberative (for example, about a policy to legalize discrimination against blacks and women), citizens do not have any obligations of mutual respect toward their opponents. In deliberative disagreement (for example, about legalizing abortion), citizens should try to accommodate the moral convictions of their opponents to the greatest extent possible, without compromising their own moral convictions. We call this kind of accommodation an economy of moral disagreement, and believe that, though neglected in theory and practice, it is essential to a morally robust democratic life.

Although both of us have devoted some of our professional life to urging these ideas on public officials and our fellow citizens in forums of practical politics, this book is primarily the product of scholarly rather than political deliberation. Insofar as it reaches beyond the academic community, it is addressed to citizens and officials in their more reflective frame of mind. Given its academic origins, some readers may be inclined to complain that only professors could be so unrealistic as to believe that moral reasoning can help solve political problems. But such a complaint would misrepresent our aims.

To begin with, we do not think that academic discussion (whether in scholarly journals or college classrooms) is a model for moral deliberation in politics. Academic discussion need not aim at justifying a practical decision, as deliberation must. Partly for this reason, academic discussion is likely to be insensitive to the contexts of ordinary politics: the pressures of power, the problems of inequality, the demands of diversity, the exigencies of persuasion. Some critics of deliberative democracy show a similar insensitivity when they judge actual political deliberations by the standards of ideal philosophical reflection. Actual deliberation is inevitably defective, but so is philosophical reflection practiced in politics. The appropriate comparison is between the ideals of democratic deliberation and philosophical reflection, or between the application of each in the non-ideal circumstances of politics.

We do not assume that politics should be a realm where the logical syllogism rules. Nor do we expect even the more appropriate standard of mutual respect always to prevail in politics. A deliberative perspective sometimes justifies bargaining, negotiation, force, and even violence. It is partly because moral argument has so much unrealized potential in dem-ocratic politics that we believe it deserves more attention. Because its place in politics is so precarious, the need to find it a more secure home and to nourish its development is all the more pressing. Yet because it is also already part of our common experience, we have reason to hope that it can survive and even prosper if philosophers along with citizens and public officials better appreciate its value in politics.

Some readers may still wonder why deliberation should have such a prominent place in democracy. Surely, they may say, citizens should care more about the justice of public policies than the process by which they are adopted, at least so long as the process is basically fair and at least minimally democratic. One of our main aims in this book is to cast doubt on the dichotomy between policies and process that this concern assumes. Having good reason as individuals to believe that a policy is just does not mean that collectively as citizens we have sufficient justification to legislate on the basis of those reasons. The moral authority of collective judgments about policy depends in part on the moral quality of the process by which citizens collectively reach those judgments. Deliberation is the most appropriate way for citizens collectively to resolve their moral disagreements not only about policies but also about the process by which policies should be adopted. Deliberation is not only a means to an end, but also a means for deciding what means are morally required to pursue our common ends.

#### Renouncing deliberation puts the cart before the horse—the critical capacities it builds are vital

Christian O. **Lundberg 10** Professor of Communications @ University of North Carolina, Chapel Hill, “Tradition of Debate in North Carolina” in Navigating Opportunity: Policy Debate in the 21st Century By Allan D. Louden, p. 311

The second major problem with the critique that identifies a naivety in articulating debate and democracy is that it presumes that the primary pedagogical outcome of debate is speech capacities. But the democratic capacities built by debate are not limited to speech—as indicated earlier, debate builds capacity for critical thinking, analysis of public claims, informed decision making, and better public judgment. If the picture of modem political life that underwrites this critique of debate is a pessimistic view of increasingly labyrinthine and bureaucratic administrative politics, rapid scientific and technological change outpacing the capacities of the citizenry to comprehend them, and ever-expanding insular special-interest- and money-driven politics, it is a puzzling solution, at best, to argue that these conditions warrant giving up on debate. If democracy is open to rearticulation, it is open to rearticulation precisely because as the challenges of modern political life proliferate, the citizenry's capacities can change, which is one of the primary reasons that theorists of democracy such as Ocwey in The Public awl Its Problems place such a high premium on education (Dewey 1988,63, 154). Debate provides an indispensible form of education in the modem articulation of democracy because it builds precisely the skills that allow the citizenry to research and be informed about policy decisions that impact them, to son rhroueh and evaluate the evidence for and relative merits of arguments for and against a policy in an increasingly infonnation-rich environment, and to prioritize their time and political energies toward policies that matter the most to them.

The merits of debate as a tool for building democratic capacity-building take on a special significance in the context of information literacy. John Larkin (2005, HO) argues that one of the primary failings of modern colleges and universities is that they have not changed curriculum to match with the challenges of a new information environment. This is a problem for the course of academic study in our current context, but perhaps more important, argues Larkin, for the future of a citizenry that will need to make evaluative choices against an increasingly complex and multimediatcd information environment (ibid-). Larkin's study tested the benefits of debate participation on information-literacy skills and concluded that in-class debate participants reported significantly higher self-efficacy ratings of their ability to navigate academic search databases and to effectively search and use other Web resources:

To analyze the self-report ratings of the instructional and control group students, we first conducted a multivariate analysis of variance on all of the ratings, looking jointly at the effect of instmction/no instruction and debate topic . . . that it did not matter which topic students had been assigned . . . students in the Instnictional [debate) group were significantly more confident in their ability to access information and less likely to feel that they needed help to do so----These findings clearly indicate greater self-efficacy for online searching among students who participated in (debate).... These results constitute strong support for the effectiveness of the project on students' self-efficacy for online searching in the academic databases. There was an unintended effect, however: After doing ... the project, instructional group students also felt more confident than the other students in their ability to get good information from Yahoo and Google. It may be that the library research experience increased self-efficacy for any searching, not just in academic databases. (Larkin 2005, 144)

Larkin's study substantiates Thomas Worthcn and Gaylcn Pack's (1992, 3) claim that debate in the college classroom plays a critical role in fostering the kind of problem-solving skills demanded by the increasingly rich media and information environment of modernity. Though their essay was written in 1992 on the cusp of the eventual explosion of the Internet as a medium, Worthcn and Pack's framing of the issue was prescient: the primary question facing today's student has changed from how to best research a topic to the crucial question of learning how to best evaluate which arguments to cite and rely upon from an easily accessible and veritable cornucopia of materials.

There are, without a doubt, a number of important criticisms of employing debate as a model for democratic deliberation. But cumulatively, the evidence presented here warrants strong support for expanding debate practice in the classroom as a technology for enhancing democratic deliberative capacities. The unique combination of critical thinking skills, research and information processing skills, oral communication skills, and capacities for listening and thoughtful, open engagement with hotly contested issues argues for debate as a crucial component of a rich and vital democratic life. In-class debate practice both aids students in achieving the best goals of college and university education, and serves as an unmatched practice for creating thoughtful, engaged, open-minded and self-critical students who are open to the possibilities of meaningful political engagement and new articulations of democratic life.

Expanding this practice is crucial, if only because the more we produce citizens that can actively and effectively engage the political process, the more likely we are to produce revisions of democratic life that are necessary if democracy is not only to survive, but to thrive. Democracy faces a myriad of challenges, including: domestic and international issues of class, gender, and racial justice; wholesale environmental destruction and the potential for rapid climate change; emerging threats to international stability in the form of terrorism, intervention and new possibilities for great power conflict; and increasing challenges of rapid globalization including an increasingly volatile global economic structure. More than any specific policy or proposal, an informed and active citizenry that deliberates with greater skill and sensitivity provides one of the best hopes for responsive and effective democratic governance, and by extension, one of the last best hopes for dealing with the existential challenges to democracy [in an] increasingly complex world.

#### Radical pessimism is self-negating—even if dialogic engagement doesn’t solve the problems with politics, that inadequacy is not a reason to vote aff

**Bell and Bansal 1988 –** first tenured African-American Professor of Law at Harvard Law School, one of the originators of critical race theory, Visiting Professor at New York University School of Law, former Dean of the University of Oregon School of Law (Derrick Bell and Preeta Bansal, Yale Law Journal, 97.8, “Symposium: The Republican Civic Tradition”)

In so asking, Michelman demonstrates that he, like generations of black Americans, recognizes the defects in our democracy and yet remains motivated to sift through the ashes of our political and jurisprudential past for remnants of what might have been and, in his view, what might yet be. This is what the Michelmans and Sunsteins in our midst know, and who can say that their vision is flawed beyond all feasibility? Certainly not the old man of the story, nor those black people who recognize that their survival depends on making real the ideals that are so frequently espoused in this society and so little observed. Skepticism about the republican ideal would stem less from disbelief than from concern that too often coalitions forged in the name of improved government are wrought through compromises that sacrifice participation by blacks.40 That is the inescapable and seemingly unchangeable pattern of this country's political and judicial functioning.¶ Having Professors Michelman and Sunstein join blacks in the quest to make real the ideals and aspirations of American democracy through abiding faith in the judiciary is not a negligible contribution on their part. By gross definition, they both are members of the oppressor class. They are, however, obviously aware of the oppression their society imposes by color and class-based fiat. Indeed, the essays are their offering to the struggle, exercises in scholarship that are reflections of their concern and, perhaps, manifestations of their faith.¶ Inadequate? Probably, given the logic-defying barriers of power-based precedent lurking just behind the dense smokescreen of race. But the oppressed will not triumph over these barriers through faith alone. And those slender reeds that are accepted as "black progress" cannot emerge without the nurture of some whites who realize that the oppression of blacks does not oppress blacks alone, but, indeed, that it denies all of humanity the full emancipatory potential of critical, dialogic self-rule. Thus, while the current interest in civic republicanism may be a passing fashion for those with the luxury to revel in the life of the mind, the skepticism that is a necessary defense for the perpetually disadvantaged should not blind minorities to the possibility that faith in the intellectual solution may be as deserving of recognition as faith that our humanity will not always be subordinated because we are not white.

#### Voting aff embraces an ethic of despair that ignores the dynamics that have historically led to change in social relations

Brown 9 [Vincent Brown is Professor of History and of African and African-American Studies at Harvard University. AMERICAN HISTORICAL REVIEW, DECEMBER 2009 <http://history.fas.harvard.edu/people/faculty/documents/brown-socialdeath.pdf> //liam]

Slavery and Social Death was widely reviewed and lavishly praised for its erudition and conceptual rigor. As a result of its success, social death has become a handy general deﬁnition of slavery, for many historians and non-historians alike. But it is often forgotten that the concept of social death is a distillation from Patterson’s breathtaking survey—a theoretical abstraction that is meant not to describe the lived experiences of the enslaved so much as to reduce them to a least common denominator that could reveal the essence of slavery in an ideal-type slave, shorn of meaningful heritage. As a concept, it is what Frederick Cooper has called an “agentless abstraction” that provides a neat cultural logic but ultimately does little to illuminate the social and political experience of enslavement and the struggles that produce historic transformations. Indeed, it is difﬁcult to use such a distillation to explain the actual behavior of slaves, and yet in much of the scholarship that followed in the wake of Slavery and Social Death, Patterson’s abstract distillates have been used to explain the existential condition of the enslaved. Having emerged from the discipline of sociology, “social death” ﬁt comfortably within a scholarly tradition that had generally been more alert to deviations in patterns of black life from prevailing social norms than to the worldviews, strategies, and social tactics of people in black communities. Together with Patterson’s work on the distortions wrought by slavery on black families, “social death” reﬂected sociology’s abiding concern with “social pathology”; the “pathological condition” of twentieth-century black life could be seen as an outcome of the damage that black people had suffered during slavery. University of Chicago professor Robert Park, the grand-pe`re of the social pathologists, set the terms in 1919: “the Negro, when he landed in the United States, left behind almost everything but his dark complexion and his tropical temperament.” 8 Patterson’s distillation also conformed to the nomothetic imperative of social science, which has traditionally aimed to discover universal laws of operation that would be true regardless of time and place, making the synchronic study of social phenomena more tempting than more descriptive studies of historical transformation. Slavery and Social Death took shape during a period when largely synchronic studies of antebellum slavery in the United States dominated the scholarship on human bondage, and Patterson’s expansive view was meant to situate U.S. slavery in a broad context rather than to discuss changes as the institution developed through time. Thus one might see “social death” as an obsolete product of its time and tradition, an academic artifact with limited purchase for contemporary scholarship, were it not for the concept’s reemergence in some important new studies of slavery. 9 WIDELY ACKNOWLEDGED AS AMONG themost onerous of social institutions, slavery has much to tell us about the way human beings react to oppression. At the same time, the extreme nature of the institution naturally encourages a pessimistic view of the capacity for collective agency among subjugated people. As a result, trends in the study of slavery, as with the study of dominancemore generally, often divide between works that emphasize the overwhelming power of the institution and scholarship that focuses on the resistant efforts of the enslaved. In turn, this division frames a problem in the general understanding of political life, especially for the descendants of the powerless. It might even be said that these kinds of studies form different and opposing genres—hopeful stories of heroic subalterns versus anatomies of doom—that compete for ascendance. In recent years, if the invocation of Patterson’s “social death” is any indication, the pendulum seems to have swung decidedly toward despair.

#### This is especially true for their aff—the critique of switch side presumes an ethical high ground that wrecks advocacy and inclusion—the result is isolationism

**Talisse 2005** – philosophy professor at Vanderbilt (Robert, Philosophy & Social Criticism, 31.4, “Deliberativist responses to activist challenges”) \*note: gendered language in this article refers to arguments made by two specific individuals in an article by Iris Young

Nonetheless, the deliberativist conception of reasonableness differs from the activist’s in at least one crucial respect. On the deliberativist view, a necessary condition for reasonableness is the willingness not only to offer justifications for one’s own views and actions, but also to listen to criticisms, objections, and the justificatory reasons that can be given in favor of alternative proposals.

In light of this further stipulation, we may say that, on the deliberative democrat’s view, reasonable citizens are responsive to reasons, their views are ‘reason tracking’. Reasonableness, then, entails an acknowledgement on the part of the citizen that her current views are possibly mistaken, incomplete, and in need of revision. Reasonableness is hence a two-way street: the reasonable citizen is able and willing to offer justifications for her views and actions, but is also prepared to consider alternate views, respond to criticism, answer objections, and, if necessary, revise or abandon her views. In short, reasonable citizens do not only believe and act for reasons, they aspire to believe and act according to the best reasons; consequently, they recognize their own fallibility in weighing reasons and hence engage in public deliberation in part for the sake of improving their views.15 ‘Reasonableness’ as the deliberative democrat understands it is constituted by a willingness to participate in an ongoing public discussion that inevitably involves processes of self-examination by which one at various moments rethinks and revises one’s views in light of encounters with new arguments and new considerations offered by one’s fellow deliberators. Hence Gutmann and Thompson write:

Citizens who owe one another justifications for the laws that they seek to impose must take seriously the reasons their opponents give. Taking seriously the reasons one’s opponents give means that, at least for a certain range of views that one opposes, one must acknowledge the possibility that an opposing view may be shown to be correct in the future. This acknowledgement has implications not only for the way they regard their own views. It imposes an obligation to continue to test their own views, seeking forums in which the views can be challenged, and keeping open the possibility of their revision or even rejection.16 (2000: 172)

That Young’s activist is not reasonable in this sense is clear from the ways in which he characterizes his activism. He claims that ‘Activities of protest, boycott, and disruption are more appropriate means for getting citizens to think seriously about what until then they have found normal and acceptable’ (106); activist tactics are employed for the sake of ‘bringing attention’ to injustice and making ‘a wider public aware of institutional wrongs’ (107). These characterizations suggest the presumption that questions of justice are essentially settled; the activist takes himself to know what justice is and what its implementation requires. He also believes he knows that those who oppose him are either the power-hungry beneficiaries of the unjust status quo or the inattentive and unaware masses who do not ‘think seriously’ about the injustice of the institutions that govern their lives and so unwittingly accept them. Hence his political activity is aimed exclusively at enlisting other citizens in support of the cause to which he is tenaciously committed.

The activist implicitly holds that there could be no reasoned objection to his views concerning justice, and no good reason to endorse those institutions he deems unjust. The activist presumes to know that no deliberative encounter could lead him to reconsider his position or adopt a different method of social action; he ‘declines’ to ‘engage persons he disagrees with’ (107) in discourse because he has judged on a priori grounds that all opponents are either pathetically benighted or balefully corrupt. When one holds one’s view as the only responsible or just option, there is no need for reasoning with those who disagree, and hence no need to be reasonable.

According to the deliberativist, this is the respect in which the activist is unreasonable. The deliberativist recognizes that questions of justice are difficult and complex. This is the case not only because justice is a notoriously tricky philosophical concept, but also because, even supposing we had a philosophically sound theory of justice, questions of implementation are especially thorny. Accordingly, political philosophers, social scientists, economists, and legal theorists continue to work on these questions. In light of much of this literature, it is difficult to maintain the level of epistemic confidence in one’s own views that the activist seems to muster; thus the deliberativist sees the activist’s confidence as evidence of a lack of honest engagement with the issues. A possible outcome of the kind of encounter the activist ‘declines’ (107) is the realization that the activist’s image of himself as a ‘David to the Goliath of power wielded by the state and corporate actors’ (106) is naïve. That is, the deliberativist comes to see, through processes of public deliberation, that there are often good arguments to be found on all sides of an important social issue; reasonableness hence demands that one must especially engage the reasons of those with whom one most vehemently disagrees and be ready to revise one’s own views if necessary. Insofar as the activist holds a view of justice that he is unwilling to put to the test of public criticism, he is unreasonable. Furthermore, insofar as the activist’s conception commits him to the view that there could be no rational opposition to his views, he is literally unable to be reasonable. Hence the deliberative democrat concludes that activism, as presented by Young’s activist, is an unreasonable model of political engagement.

The dialogical conception of reasonableness adopted by the deliberativist also provides a response to the activist’s reply to the charge that he is engaged in interest group or adversarial politics. Recall that the activist denied this charge on the grounds that activism is aimed not at private or individual interests, but at the universal good of justice. But this reply also misses the force of the posed objection. On the deliberativist view, the problem with interest-based politics does not derive simply from the source (self or group), scope (particular or universal), or quality (admirable or deplorable) of the interest, but with the concept of interests as such. Not unlike ‘preferences’, ‘interests’ typically function in democratic theory as fixed dispositions that are non-cognitive and hence unresponsive to reasons. Insofar as the activist sees his view of justice as ‘given’ and not open to rational scrutiny, he is engaged in the kind of adversarial politics the deliberativist rejects.

The argument thus far might appear to turn exclusively upon different conceptions of what reasonableness entails. The deliberativist view I have sketched holds that reasonableness involves some degree of what we may call epistemic modesty. On this view, the reasonable citizen seeks to have her beliefs reflect the best available reasons, and so she enters into public discourse as a way of testing her views against the objections and questions of those who disagree; hence she implicitly holds that her present view is open to reasonable critique and that others who hold opposing views may be able to offer justifications for their views that are at least as strong as her reasons for her own. Thus any mode of politics that presumes that discourse is extraneous to questions of justice and justification is unreasonable. The activist sees no reason to accept this. Reasonableness for the activist consists in the ability to act on reasons that upon due reflection seem adequate to underwrite action; discussion with those who disagree need not be involved. According to the activist, there are certain cases in which he does in fact know the truth about what justice requires and in which there is no room for reasoned objection. Under such conditions, the deliberativist’s demand for discussion can only obstruct justice; it is therefore irrational.

It may seem that we have reached an impasse. However, there is a further line of criticism that the activist must face. To the activist’s view that at least in certain situations he may reasonably decline to engage with persons he disagrees with (107), the deliberative democrat can raise the phenomenon that Cass Sunstein has called ‘group polarization’ (Sunstein, 2003; 2001a: ch. 3; 2001b: ch. 1). To explain: consider that political activists cannot eschew deliberation altogether; they often engage in rallies, demonstrations, teach-ins, workshops, and other activities in which they are called to make public the case for their views. Activists also must engage in deliberation among themselves when deciding strategy. Political movements must be organized, hence those involved must decide upon targets, methods, and tactics; they must also decide upon the content of their pamphlets and the precise messages they most wish to convey to the press. Often the audience in both of these deliberative contexts will be a self-selected and sympathetic group of like-minded activists.

Group polarization is a well-documented phenomenon that has ‘been found all over the world and in many diverse tasks’; it means that ‘members of a deliberating group predictably move towards a more extreme point in the direction indicated by the members’ predeliberation tendencies’ (Sunstein, 2003: 81–2). Importantly, in groups that ‘engage in repeated discussions’ over time, the polarization is even more pronounced (2003: 86). Hence discussion in a small but devoted activist enclave that meets regularly to strategize and protest ‘should produce a situation in which individuals hold positions more extreme than those of any individual member before the series of deliberations began’ (ibid.).17

The fact of group polarization is relevant to our discussion because the activist has proposed that he may reasonably decline to engage in discussion with those with whom he disagrees in cases in which the requirements of justice are so clear that he can be confident that he has the truth. Group polarization suggests that deliberatively confronting those with whom we disagree is essential even when we have the truth. For even if we have the truth, if we do not engage opposing views, but instead deliberate only with those with whom we agree, our view will shift progressively to a more extreme point, and thus we lose the truth. In order to avoid polarization, deliberation must take place within heterogeneous ‘argument pools’ (Sunstein, 2003: 93). This of course does not mean that there should be no groups devoted to the achievement of some common political goal; it rather suggests that engagement with those with whom one disagrees is essential to the proper pursuit of justice. Insofar as the activist denies this, he is unreasonable.

#### The idea that policy can never be debated outside a framework of anti-blackness is unfalsifiable and socially dangerous—the point isn’t to affirm the USFG as such, but rather make provisional claims, which furthers a deeper analysis

**Talisse 2005** – philosophy professor at Vanderbilt (Robert, Philosophy & Social Criticism, 31.4, “Deliberativist responses to activist challenges”) \*note: gendered language in this article refers to arguments made by two specific individuals in an article by Iris Young

These two serious activist challenges may be summarized as follows. First, the activist has claimed that political discussion must always take place within the context of existing institutions that due to structural inequality grant to certain individuals the power to set discussion agendas and constrain the kinds of options open for consideration prior to any actual encounter with their deliberative opponents; the deliberative process is in this sense rigged from the start to favor the status quo and disadvantage the agents of change. Second, the activist has argued that political discussion must always take place by means of antecedent ‘discourses’ or vocabularies which establish the conceptual boundaries of the deliberation and hence may themselves be hegemonic or systematically distorting; the deliberative process is hence subject to the distorting influence of ideology at the most fundamental level, and deliberative democrats do not have the resources by which such distortions can be addressed. As they aim to establish that the deliberativist’s program is inconsistent with her own democratic objectives, this pair of charges is, as Young claims, serious (118). However, I contend that the deliberativist has adequate replies to them both.

Part of the response to the first challenge is offered by Young herself. The deliberative democrat does not advocate public political discussion only at the level of state policy, and so does not advocate a program that must accept as given existing institutional settings and contexts for public discussion. Rather, the deliberativist promotes an ideal of democratic politics according to which deliberation occurs at all levels of social association, including households, neighborhoods, local organizations, city boards, and the various institutions of civil society. The longrun aim of the deliberative democrat is to cultivate a more deliberative polity, and the deliberativist claims that this task must begin at more local levels and apart from the state and its policies. We may say that deliberativism promotes a ‘decentered’ (Habermas, 1996: 298) view of public deliberation and a ‘pluralistic’ (Benhabib, 2002: 138) model of the public sphere; in other words, the deliberative democrat envisions a ‘multiple, anonymous, heterogeneous network of many publics and public conversations’ (Benhabib, 1996b: 87). The deliberativist is therefore committed to the creation of ‘an inclusive deliberative setting in which basic social and economic structures can be examined’; these settings ‘for the most part must be outside ongoing settings of official policy discussion’ (115).

Although Young characterizes this decentered view of political discourse as requiring that deliberative democrats ‘withdraw’ (115) from ‘existing structural circumstances’ (118), it is unclear that this follows. There certainly is no reason why the deliberativist must choose between engaging arguments within existing deliberative sites and creating new ones that are removed from established institutions. There is no need to accept Young’s dichotomy; the deliberativist holds that work must be done both within existing structures and within new contexts. As Bohman argues,

Deliberative politics has no single domain; it includes such diverse activities as formulating and achieving collective goals, making policy decisions and means and ends, resolving conflicts of interest and principle, and solving problems as they emerge in ongoing social life. Public deliberation therefore has to take many forms. (1996: 53)

The second challenge requires a detailed response, so let us begin with a closer look at the proposed argument. The activist has moved quickly from the claim that discourses can be systematically distorting to the claim that all political discourse operative in our current contexts is systematically distorting. The conclusion is that properly democratic objectives cannot be pursued by deliberative means. The first thing to note is that, as it stands, the conclusion does not follow from the premises; the argument is enthymematic. What is required is the additional premise that the distorting features of discussion cannot be corrected by further discussion. That discussion cannot rehabilitate itself is a crucial principle in the activist’s case, but is nowhere argued.

Moreover, the activist has given no arguments to support the claim that present modes of discussion are distorting, and has offered no analysis of how one might detect such distortions and discern their nature.20 Rather than providing a detailed analysis of the phenomenon of systematic distortion, Young provides (in her own voice) two examples of discourses that she claims are hegemonic. First she considers discussions of poverty that presume the adequacy of labor market analyses; second she cites discussions of pollution that presume that modern economies must be based on the burning of fossil-fuels. In neither case does she make explicit what constitutes the distortion. At most, her examples show that some debates are framed in ways that render certain types of proposals ‘out of bounds’. But surely this is the case in any discussion, and it is not clear that it is in itself always a bad thing or even ‘distorting’. Not all discursive exclusions are distortions because the term ‘distortion’ implies that something is being excluded that should be included.

Clearly, then, there are some dialectical exclusions that are entirely appropriate. For example, it is a good thing that current discussions of poverty are often cast in terms that render white supremacist ‘solutions’ out of bounds; it is also good that pollution discourses tend to exclude fringe-religious appeals to the cleansing power of mass prayer. This is not to say that opponents of market analyses of poverty are on par with white supremacists or that Greens are comparable to fringe-religious fanatics; it is rather to press for a deeper analysis of the discursive hegemony that the activist claims undermines deliberative democracy. It is not clear that the requested analysis, were it provided, would support the claim that systematic distortions cannot be addressed and remedied within the processes of continuing discourse**.** There are good reasons to think that continued discussion among persons who are aware of the potentially hegemonic features of discourse can correct the distorting factors that exist and block the generation of new distortions.

As Young notes (116), James Bohman (1996: ch. 3) has proposed a model of deliberation that incorporates concerns about distorted communication and other forms of deliberative inequality within a general theory of deliberative democracy; the recent work of Seyla Benhabib (2002) and Robert Goodin (2003: chs 9–11) aims for similar goals. Hence I conclude that, as it stands, the activist’s second argument is incomplete, and as such the force of the difficulty it raises for deliberative democracy is not yet clear. If the objection is to stick, the activist must first provide a more detailed examination of the hegemonic and distorting properties of discourse; he must then show both that prominent modes of discussion operative in our democracy are distorting in important ways and that further discourse cannot remedy these distortions.

#### We impact turn their accusations of sophistry—there’s a skills unique to our model with an alternative that grounds decisions in dialogical, argumentative heuristics instead of decisionistic formulas or conviction

**Mitchell 2010** – associate professor and director of graduate studies in the Department of Communication at the University of Pittsburgh (Gordon, Rhetoric & Public Affairs, 13.1, “SWITCH-SIDE DEBATING MEETS DEMAND-DRIVEN RHETORIC OF SCIENCE”)

The watchwords for the intelligence community’s debating initiative— collaboration, critical thinking, collective awareness—resonate with key terms anchoring the study of deliberative democracy. In a major new text, John Gastil defines deliberation as a process whereby people “carefully examine a problem and arrive at a well-reasoned solution aft er a period of inclusive, respectful consideration of diverse points of view.”40 Gastil and his colleagues in organizations such as the Kettering Foundation and the National Coalition for Dialogue and Deliberation are pursuing a research program that foregrounds the democratic telos of deliberative processes. Work in this area features a blend of concrete interventions and studies of citizen empowerment.41 Notably, a key theme in much of this literature concerns the relationship between deliberation and debate, with the latter term often loaded with pejorative baggage and working as a negative foil to highlight the positive qualities of deliberation.42 “Most political discussions, however, are debates. Stories in the media turn politics into a never-ending series of contests. People get swept into taking sides; their energy goes into figuring out who or what they’re for or against,” says Kettering president David Mathews and coauthor Noelle McAfee. “Deliberation is different. It is neither a partisan argument where opposing sides try to win nor a casual conversation conducted with polite civility. Public deliberation is a means by which citizens make tough choices about basic purposes and directions for their communities and their country. It is a way of reasoning and talking together.”43 Mathews and McAfee’s distrust of the debate process is almost paradigmatic amongst theorists and practitioners of Kettering-style deliberative democracy. One conceptual mechanism for reinforcing this debate-deliberation opposition is characterization of debate as a process inimical to deliberative aims, with debaters adopting dogmatic and fixed positions that frustrate the deliberative objective of “choice work.” In this register, Emily Robertson observes, “unlike deliberators, debaters are typically not open to the possibility of being shown wrong. . . . Debaters are not trying to find the best solution by keeping an open mind about the opponent’s point of view.”44 Similarly, founding documents from the University of Houston–Downtown’s Center for Public Deliberation state, “Public deliberation is about choice work, which is different from a dialogue or a debate. In dialogue, people oft en look to relate to each other, to understand each other, and to talk about more informal issues. In debate, there are generally two positions and people are generally looking to ‘win’ their side.”45 Debate, cast here as the theoretical scapegoat, provides a convenient, low-water benchmark for explaining how other forms of deliberative interaction better promote cooperative “choice work.” The Kettering-inspired framework receives support from perversions of the debate process such as vapid presidential debates and verbal pyrotechnics found on Crossfire-style television shows.46 In contrast, the intelligence community’s debating initiative stands as a nettlesome anomaly for these theoretical frameworks, with debate serving, rather than frustrating, the ends of deliberation. The presence of such an anomaly would seem to point to the wisdom of fashioning a theoretical orientation that frames the debate-deliberation connection in contingent, rather than static terms, with the relationship between the categories shift ing along with the various contexts in which they manifest in practice.47 Such an approach gestures toward the importance of rhetorically informed critical work on multiple levels. First, the contingency of situated practice invites analysis geared to assess, in particular cases, the extent to which debate practices enable and/ or constrain deliberative objectives. Regarding the intelligence community’s debating initiative, such an analytical perspective highlights, for example, the tight connection between the deliberative goals established by intelligence officials and the cultural technology manifest in the bridge project’s online debating applications such as Hot Grinds. An additional dimension of nuance emerging from this avenue of analysis pertains to the precise nature of the deliberative goals set by bridge. Program descriptions notably eschew Kettering-style references to democratic citizen empowerment, yet feature deliberation prominently as a key ingredient of strong intelligence tradecraft . Th is caveat is especially salient to consider when it comes to the second category of rhetorically informed critical work invited by the contingent aspect of specific debate initiatives. To grasp this layer it is useful to appreciate how the name of the bridge project constitutes an invitation for those outside the intelligence community to participate in the analytic outreach eff ort. According to Doney, bridge “provides an environment for Analytic Outreach—a place where IC analysts can reach out to expertise elsewhere in federal, state, and local government, in academia, and industry. New communities of interest can form quickly in bridge through the ‘web of trust’ access control model—access to minds outside the intelligence community creates an analytic force multiplier.”48 This presents a moment of choice for academic scholars in a position to respond to Doney’s invitation; it is an opportunity to convert scholarly expertise into an “analytic force multiplier.” In reflexively pondering this invitation, it may be valuable for scholars to read Greene and Hicks’s proposition that switch-side debating should be viewed as a cultural technology in light of Langdon Winner’s maxim that “technological artifacts have politics.”49 In the case of bridge, politics are informed by the history of intelligence community policies and practices. Commenter Th omas Lord puts this point in high relief in a post off ered in response to a news story on the topic: “[W]hy should this thing (‘bridge’) be? . . . [Th e intelligence community] on the one hand sometimes provides useful information to the military or to the civilian branches and on the other hand it is a dangerous, out of control, relic that by all external appearances is not the slightest bit reformed, other than superficially, from such excesses as became exposed in the cointelpro and mkultra hearings of the 1970s.”50 A debate scholar need not agree with Lord’s full-throated criticism of the intelligence community (he goes on to observe that it bears an alarming resemblance to organized crime) to understand that participation in the community’s Analytic Outreach program may serve the ends of deliberation, but not necessarily democracy, or even a defensible politics. Demand-driven rhetoric of science necessarily raises questions about what’s driving the demand, questions that scholars with relevant expertise would do well to ponder carefully before embracing invitations to contribute their argumentative expertise to deliberative projects. By the same token, it would be prudent to bear in mind that the technological determinism about switch-side debate endorsed by Greene and Hicks may tend to flatten reflexive assessments regarding the wisdom of supporting a given debate initiative—as the next section illustrates, manifest differences among initiatives warrant context-sensitive judgments regarding the normative political dimensions featured in each case. Public Debates in the EPA Policy Process The preceding analysis of U.S. intelligence community debating initiatives highlighted how analysts are challenged to navigate discursively the heteroglossia of vast amounts of diff erent kinds of data flowing through intelligence streams. Public policy planners are tested in like manner when they attempt to stitch together institutional arguments from various and sundry inputs ranging from expert testimony, to historical precedent, to public comment. Just as intelligence managers find that algorithmic, formal methods of analysis often don’t work when it comes to the task of interpreting and synthesizing copious amounts of disparate data, public-policy planners encounter similar challenges. In fact, the argumentative turn in public-policy planning elaborates an approach to public-policy analysis that foregrounds deliberative interchange and critical thinking as alternatives to “decisionism,” the formulaic application of “objective” decision algorithms to the public policy process. Stating the matter plainly, Majone suggests, “whether in written or oral form, argument is central in all stages of the policy process.” Accordingly, he notes, “we miss a great deal if we try to understand policy-making solely in terms of power, influence, and bargaining, to the exclusion of debate and argument.”51 One can see similar rationales driving Goodwin and Davis’s EPA debating project, where debaters are invited to conduct on-site public debates covering resolutions craft ed to reflect key points of stasis in the EPA decision-making process. For example, in the 2008 Water Wars debates held at EPA headquarters in Washington, D.C., resolutions were crafted to focus attention on the topic of water pollution, with one resolution focusing on downstream states’ authority to control upstream states’ discharges and sources of pollutants, and a second resolution exploring the policy merits of bottled water and toilet paper taxes as revenue sources to fund water infrastructure projects. In the first debate on interstate river pollution, the team of Seth Gannon and Seungwon Chung from Wake Forest University argued in favor of downstream state control, with the Michigan State University team of Carly Wunderlich and Garrett Abelkop providing opposition. In the second debate on taxation policy, Kevin Kallmyer and Matthew Struth from University of Mary Washington defended taxes on bottled water and toilet paper, while their opponents from Howard University, Dominique Scott and Jarred McKee, argued against this proposal. Reflecting on the project, Goodwin noted how the intercollegiate Switch-Side Debating Meets Demand-Driven Rhetoric of Science 107 debaters’ ability to act as “honest brokers” in the policy arguments contributed positively to internal EPA deliberation on both issues.52 Davis observed that since the invited debaters “didn’t have a dog in the fight,” they were able to give voice to previously buried arguments that some EPA subject matter experts felt reticent to elucidate because of their institutional affiliations.53 Such findings are consistent with the views of policy analysts advocating the argumentative turn in policy planning. As Majone claims, “Dialectical confrontation between generalists and experts often succeeds in bringing out unstated assumptions, conflicting interpretations of the facts, and the risks posed by new projects.”54 Frank Fischer goes even further in this context, explicitly appropriating rhetorical scholar Charles Willard’s concept of argumentative “epistemics” to flesh out his vision for policy studies: Uncovering the epistemic dynamics of public controversies would allow for a more enlightened understanding of what is at stake in a particular dispute, making possible a sophisticated evaluation of the various viewpoints and merits of different policy options. In so doing, the differing, oft en tacitly held contextual perspectives and values could be juxtaposed; the viewpoints and demands of experts, special interest groups, and the wider public could be directly compared; and the dynamics among the participants could be scrutizined. This would by no means sideline or even exclude scientific assessment; it would only situate it within the framework of a more comprehensive evaluation.55 As Davis notes, institutional constraints present within the EPA communicative milieu can complicate eff orts to provide a full airing of all relevant arguments pertaining to a given regulatory issue. Thus, intercollegiate debaters can play key roles in retrieving and amplifying positions that might otherwise remain sedimented in the policy process. The dynamics entailed in this symbiotic relationship are underscored by deliberative planner John Forester, who observes, “If planners and public administrators are to make democratic political debate and argument possible, they will need strategically located allies to avoid being fully thwarted by the characteristic self-protecting behaviors of the planning organizations and bureaucracies within which they work.”56 Here, an institution’s need for “strategically located allies” to support deliberative practice constitutes the demand for rhetorically informed expertise, setting up what can be considered a demand-driven rhetoric of science. As an instance of rhetoric of science scholarship, this type of “switch-side public 108 Rhetoric & Public Affairs debate” differs both from insular contest tournament debating, where the main focus is on the pedagogical benefit for student participants, and first-generation rhetoric of science scholarship, where critics concentrated on unmasking the rhetoricity of scientific artifacts circulating in what many perceived to be purely technical spheres of knowledge production.58 As a form of demand-driven rhetoric of science, switch-side debating connects directly with the communication field’s performative tradition of argumentative engagement in public controversy—a different route of theoretical grounding than rhetorical criticism’s tendency to locate its foundations in the English field’s tradition of literary criticism and textual analysis.59 Given this genealogy, it is not surprising to learn how Davis’s response to the EPA’s institutional need for rhetorical expertise took the form of a public debate proposal, shaped by Davis’s dual background as a practitioner and historian of intercollegiate debate. Davis competed as an undergraduate policy debater for Howard University in the 1970s, and then went on to enjoy substantial success as coach of the Howard team in the new millennium. In an essay reviewing the broad sweep of debating history, Davis notes, “Academic debate began at least 2,400 years ago when the scholar Protagoras of Abdera (481–411 bc), known as the father of debate, conducted debates among his students in Athens.”60 As John Poulakos points out, “older” Sophists such as Protagoras taught Greek students the value of dissoi logoi, or pulling apart complex questions by debating two sides of an issue.61 The few surviving fragments of Protagoras’s work suggest that his notion of dissoi logoi stood for the principle that “two accounts [logoi] are present about every ‘thing,’ opposed to each other,” and further, that humans could “measure” the relative soundness of knowledge claims by engaging in give-and-take where parties would make the “weaker argument stronger” to activate the generative aspect of rhetorical practice, a key element of the Sophistical tradition.62 Following in Protagoras’s wake, Isocrates would complement this centrifugal push with the pull of synerchesthe, a centripetal exercise of “coming together” deliberatively to listen, respond, and form common social bonds.63 Isocrates incorporated Protagorean dissoi logoi into synerchesthe, a broader concept that he used flexibly to express interlocking senses of (1) inquiry, as in groups convening to search for answers to common questions through discussion;64 (2) deliberation, with interlocutors gathering in a political setting to deliberate about proposed courses of action;65 and (3) alliance formation, a form of collective action typical at festivals,66 or in the exchange of pledges that deepen social ties.67 Switch-Side Debating Meets Demand-Driven Rhetoric of Science 109 Returning once again to the Kettering-informed sharp distinction between debate and deliberation, one sees in Isocratic synerchesthe, as well as in the EPA debating initiative, a fusion of debate with deliberative functions. Echoing a theme raised in this essay’s earlier discussion of intelligence tradecraft , such a fusion troubles categorical attempts to classify debate and deliberation as fundamentally opposed activities. Th e significance of such a finding is amplified by the frequency of attempts in the deliberative democracy literature to insist on the theoretical bifurcation of debate and deliberation as an article of theoretical faith. Tandem analysis of the EPA and intelligence community debating initiatives also brings to light dimensions of contrast at the third level of Isocratic synerchesthe, alliance formation. Th e intelligence community’s Analytic Outreach initiative invites largely one-way communication flowing from outside experts into the black box of classified intelligence analysis. On the contrary, the EPA debating program gestures toward a more expansive project of deliberative alliance building. In this vein, Howard University’s participation in the 2008 EPA Water Wars debates can be seen as the harbinger of a trend by historically black colleges and universities (hbcus) to catalyze their debate programs in a strategy that evinces Davis’s dual-focus vision. On the one hand, Davis aims to recuperate Wiley College’s tradition of competitive excellence in intercollegiate debate, depicted so powerfully in the feature film The Great Debaters, by starting a wave of new debate programs housed in hbcus across the nation.68 On the other hand, Davis sees potential for these new programs to complement their competitive debate programming with participation in the EPA’s public debating initiative. Th is dual-focus vision recalls Douglas Ehninger’s and Wayne Brockriede’s vision of “total” debate programs that blend switch-side intercollegiate tournament debating with forms of public debate designed to contribute to wider communities beyond the tournament setting.69 Whereas the political telos animating Davis’s dual-focus vision certainly embraces background assumptions that Greene and Hicks would find disconcerting—notions of liberal political agency, the idea of debate using “words as weapons”70—there is little doubt that the project of pursuing environmental protection by tapping the creative energy of hbcu-leveraged dissoi logoi differs significantly from the intelligence community’s eff ort to improve its tradecraft through online digital debate programming. Such diff erence is especially evident in light of the EPA’s commitment to extend debates to public realms, with the attendant possible benefits unpacked by Jane Munksgaard and Damien Pfister: 110 Rhetoric & Public Affairs Having a public debater argue against their convictions, or confess their indecision on a subject and subsequent embrace of argument as a way to seek clarity, could shake up the prevailing view of debate as a war of words. Public uptake of the possibility of switch-sides debate may help lessen the polarization of issues inherent in prevailing debate formats because students are no longer seen as wedded to their arguments. This could transform public debate from a tussle between advocates, with each public debater trying to convince the audience in a Manichean struggle about the truth of their side, to a more inviting exchange focused on the content of the other’s argumentation and the process of deliberative exchange.71 Reflection on the EPA debating initiative reveals a striking convergence among (1) the expressed need for dissoi logoi by government agency officials wrestling with the challenges of inverted rhetorical situations, (2) theoretical claims by scholars regarding the centrality of argumentation in the public policy process, and (3) the practical wherewithal of intercollegiate debaters to tailor public switch-side debating performances in specific ways requested by agency collaborators. These points of convergence both underscore previously articulated theoretical assertions regarding the relationship of debate to deliberation, as well as deepen understanding of the political role of deliberation in institutional decision making. But they also suggest how decisions by rhetorical scholars about whether to contribute switch-side debating acumen to meet demand-driven rhetoric of science initiatives ought to involve careful reflection. Such an approach mirrors the way policy planning in the “argumentative turn” is designed to respond to the weaknesses of formal, decisionistic paradigms of policy planning with situated, contingent judgments informed by reflective deliberation. Conclusion Dilip Gaonkar’s criticism of first-generation rhetoric of science scholarship rests on a key claim regarding what he sees as the inherent “thinness” of the ancient Greek rhetorical lexicon.72 That lexicon, by virtue of the fact that it was invented primarily to teach rhetorical performance, is ill equipped in his view to support the kind of nuanced discriminations required for eff ective interpretation and critique of rhetorical texts. Although Gaonkar isolates rhetoric of science as a main target of this critique, his choice of subject matter Switch-Side Debating Meets Demand-Driven Rhetoric of Science 111 positions him to toggle back and forth between specific engagement with rhetoric of science scholarship and discussion of broader themes touching on the metatheoretical controversy over rhetoric’s proper scope as a field of inquiry (the so-called big vs. little rhetoric dispute).73 Gaonkar’s familiar refrain in both contexts is a warning about the dangers of “universalizing” or “globalizing” rhetorical inquiry, especially in attempts that “stretch” the classical Greek rhetorical vocabulary into a hermeneutic metadiscourse, one pressed into service as a master key for interpretation of any and all types of communicative artifacts. In other words, Gaonkar warns against the dangers of rhetoricians pursuing what might be called supply-side epistemology, rhetoric’s project of pushing for greater disciplinary relevance by attempting to extend its reach into far-flung areas of inquiry such as the hard sciences. Yet this essay highlights how rhetorical scholarship’s relevance can be credibly established by outsiders, who seek access to the creative energy flowing from the classical Greek rhetorical lexicon in its native mode, that is, as a tool of invention designed to spur and hone rhetorical performance. Analysis of the intelligence community and EPA debating initiatives shows how this is the case, with government agencies calling for assistance to animate rhetorical processes such as dissoi logoi (debating different sides) and synerchesthe (the performative task of coming together deliberately for the purpose of joint inquiry, collective choice-making, and renewal of communicative bonds).74 Th is demand-driven epistemology is diff erent in kind from the globalization project so roundly criticized by Gaonkar. Rather than rhetoric venturing out from its own academic home to proselytize about its epistemological universality for all knowers, instead here we have actors not formally trained in the rhetorical tradition articulating how their own deliberative objectives call for incorporation of rhetorical practice and even recruitment of “strategically located allies”75 to assist in the process. Since the productivist content in the classical Greek vocabulary serves as a critical resource for joint collaboration in this regard, demand-driven rhetoric of science turns Gaonkar’s original critique on its head. In fairness to Gaonkar, it should be stipulated that his 1993 intervention challenged the way rhetoric of science had been done to date, not the universe of ways rhetoric of science might be done in the future. And to his partial credit, Gaonkar did acknowledge the promise of a performance-oriented rhetoric of science, especially one informed by classical thinkers other than Aristotle.76 In his Ph.D. dissertation on “Aspects of Sophistic Pedagogy,” Gaonkar documents how the ancient sophists were “the greatest champions” 112 Rhetoric & Public Affairs of “socially useful” science,77 and also how the sophists essentially practiced the art of rhetoric in a translational, performative register: Th e sophists could not blithely go about their business of making science useful, while science itself stood still due to lack of communal support and recognition. Besides, sophistic pedagogy was becoming increasingly dependent on the findings of contemporary speculation in philosophy and science. Take for instance, the eminently practical art of rhetoric. As taught by the best of the sophists, it was not simply a handbook of recipes which anyone could mechanically employ to his advantage. On the contrary, the strength and vitality of sophistic rhetoric came from their ability to incorporate the relevant information obtained from the on-going research in other fields.78 Of course, deep trans-historical diff erences make uncritical appropriation of classical Greek rhetoric for contemporary use a fool’s errand. But to gauge from Robert Hariman’s recent reflections on the enduring salience of Isocrates, “timely, suitable, and eloquent appropriations” can help us postmoderns “forge a new political language” suitable for addressing the complex raft of intertwined problems facing global society. Such retrospection is long overdue, says Hariman, as “the history, literature, philosophy, oratory, art, and political thought of Greece and Rome have never been more accessible or less appreciated.”79 Th is essay has explored ways that some of the most venerable elements of the ancient Greek rhetorical tradition—those dealing with and deliberation—can be retrieved and adapted to answer calls in the contemporary milieu for cultural technologies capable of dealing with one of our time’s most daunting challenges. This challenge involves finding meaning in inverted rhetorical situations characterized by an endemic surplus of heterogeneous content.

#### The frame of “social death” entrenches pessimism and despair, is overly reductionist and doesn’t solve

Brown 09 [Vincent Brown is Professor of History and of African and African-American Studies at Harvard University. AMERICAN HISTORICAL REVIEW, DECEMBER 2009 <http://history.fas.harvard.edu/people/faculty/documents/brown-socialdeath.pdf> //liam]

Slavery and Social Death was widely reviewed and lavishly praised for its erudition and conceptual rigor. As a result of its success, social death has become a handy general deﬁnition of slavery, for many historians and non-historians alike. But it is often forgotten that the concept of social death is a distillation from Patterson’s breathtaking survey—a theoretical abstraction that is meant not to describe the lived experiences of the enslaved so much as to reduce them to a least common denominator that could reveal the essence of slavery in an ideal-type slave, shorn of meaningful heritage. As a concept, it is what Frederick Cooper has called an “agentless abstraction” that provides a neat cultural logic but ultimately does little to illuminate the social and political experience of enslavement and the struggles that produce historic transformations. Indeed, it is difﬁcult to use such a distillation to explain the actual behavior of slaves, and yet in much of the scholarship that followed in the wake of Slavery and Social Death, Patterson’s abstract distillates have been used to explain the existential condition of the enslaved. Having emerged from the discipline of sociology, “social death” ﬁt comfortably within a scholarly tradition that had generally been more alert to deviations in patterns of black life from prevailing social norms than to the worldviews, strategies, and social tactics of people in black communities. Together with Patterson’s work on the distortions wrought by slavery on black families, “social death” reﬂected sociology’s abiding concern with “social pathology”; the “pathological condition” of twentieth-century black life could be seen as an outcome of the damage that black people had suffered during slavery.University of Chicago professor Robert Park, the grand-pe`re of the social pathologists, set the terms in 1919: “the Negro, when he landed in the United States, left behind almost everything but his dark complexion and his tropical temperament.” 8 Patterson’s distillation also conformed to the nomothetic imperative of social science, which has traditionally aimed to discover universal laws of operation that would be true regardless of time and place, making the synchronic study of social phenomena more tempting than more descriptive studies of historical transformation. Slavery and Social Death took shape during a period when largely synchronic studies of antebellum slavery in the United States dominated the scholarship on human bondage, and Patterson’s expansive view was meant to situate U.S. slavery in a broad context rather than to discuss changes as the institution developed through time. Thus one might see “social death” as an obsolete product of its time and tradition, an academic artifact with limited purchase for contemporary scholarship, were it not for the concept’s reemergence in some important new studies of slavery. 9 WIDELY ACKNOWLEDGED AS AMONG themost onerous of social institutions, slavery has much to tell us about the way human beings react to oppression. At the same time, the extreme nature of the institution naturally encourages a pessimistic view of the capacity for collective agency among subjugated people. As a result, trends in the study of slavery, as with the study of dominancemore generally, often divide between works that emphasize the overwhelming power of the institution and scholarship that focuses on the resistant efforts of the enslaved. In turn, this division frames a problem in the general understanding of political life, especially for the descendants of the powerless. It might even be said that these kinds of studies form different and opposing genres—hopeful stories of heroic subalterns versus anatomies of doom—that compete for ascendance. In recent years, if the invocation of Patterson’s “social death” is any indication, the pendulum seems to have swung decidedly toward despair.

## 2nc

### switch side thinking

#### Just researching the other side doesn’t access the empathic learning and epistemic modesty unique to defending something you disagree with

**Bile 2000** – PhD candidate in the School of Interpersonal Communication at Ohio University (Jeffrey Thomas, Contemporary Argumentation and Debate, “REASONING TOGETHER AS DIALECTICAL PARTNERS! "BEYOND PERSUASION" TOWARD "COOPERATIVE ARGUMENTATION"”, http://www.cedadebate.org/CAD/index.php/CAD/article/viewFile/254/238)

In our contentious culture, we surely need better ways to begin to discuss the issues without one side being against another” (Griffin 101). If we took this approach, we could have discussions that center on the complexity of issues, what their implications are, who might be affected and in what ways, and on how one choice over another changes the issue itself. So, I think the issue of the "resolution" needs to be reconsidered from an invitational framework as well. (Griffin 101). l agree completely that these are worthwhile goals. Certainly, contemporary social problems are not as simple as our dualistic debates often imply. Before discarding binary topics too quickly, however, we should consider their contextual effects. When combined with the requirement of switching sides, two-sided topics expand the possibilities for discovering that those with whom we disagree might have tenable positions after all. Empathic learning is encouraged, then, when students agree to disagree in the context of debate tournaments. A related issue, deserving much further exploration, is the problematic of counter-attitudinal advocacy created by mandatory side switching. l sympathize with the view that students should not be "forced" to advocate a position that they do not believe. As a practical matter, I believe that most topics are ambiguous enough to allow considerable opportunity to find positional comfort. But, more fundamentally, I'm not sure that l ultimately accept the contention that academic counter-attitudinal advocacy is undesirable. The counter-attitudinal switch-sides structure of intercollegiate debate asks the student to imaginatively enter into another's world and to try to understand why they might see it as they do. This convention may yield invitational dividends. Foss and Griffin recognize value in asking communicators to seriously consider "˜perspectives other than those they presently hold and they encourage them to try to "validate those perspectives even if they differ dramatically from the rhetor's own" (5). It seems to me that counter-attitudinal advocacy might be an excellent technique for encouraging just that. Debate tournaments ask students to agree to model open-mindedness, empathy, and personal validation of multiple views. No one should be forced to debate, but for those making the choice, agreeing to disagree encourages a consideration of the fallibility of one's own constructions of the world as well as empathy for other ways of seeing things.

#### Side switching does not equate to speaking from nowhere or divesting yourself of social background—our argument is that if your only exposure to the topic is finding ways to critique or avoid it, then you become solely capable of preaching to the choir. Debate is unique because it gives opportunities to tactically inhabit other perspectives without enlisting in those causes for the sake of skill development and mutual testing

**Haskell 1990** – history professor at Rice University (May, Thomas, History and Theory, 29.2, “Objectivity is Not Neutrality: Rhetoric vs. Practice in Peter Novick’s That Noble Dream”, p. 129-157)

Detachment functions in this manner not by draining us of passion, but by helping to channel our intellectual passions in such a way as to insure collision with rival perspectives. In that collision, if anywhere, our thinking transcends both the idiosyncratic and the conventional. Detachment both socializes and deparochializes the work of intellect; it is the quality that fits an individual to participate fruitfully in what is essentially a communal enterprise. Objectivity is so much a product of social arrangements that individuals and particular opinions scarcely deserve to be called objective, yet the social arrangements that foster objectivity have no basis for existence apart from individual striving for detachment. Only insofar as the members of the community are disposed to set aside the perspective that comes most spontaneously to them, and strive to see things in a detached light, is there any likelihood that they will engage with one another mentally and provoke one another through mutual criticism to the most complete, least idiosyncratic, view that humans are capable of. When the ascetic effort at detachment fails, as it often does, we "talk past one another," producing nothing but discordant soliloquies, each fancying itself the voice of reason. The kind of thinking I would call objective leads only a fugitive existence outside of communities that enjoy a high degree of independence from the state and other external powers, and which are dedicated internally not only to detachment, but also to intense mutual criticism and to the protection of dissenting positions against the perpetual threat of majority tyranny. Some hypothetical examples may clarify what I mean by objective thinking and show how remote it is from neutrality. Consider an extreme case: the person who, although capable of detachment, suspends his or her own perceptions of the world not in the expectation of gaining a broader perspective, but only in order to learn how opponents think so as to demolish their arguments more effectively - who is, in\* short, a polemicist, deeply and fixedly committed as a lifelong project to a particular political or cultural or moral program. Anyone choosing such a life obviously risks being thought boorish or provincial, but insofar as such a person successfully enters into the thinking of his or her rivals and produces arguments potentially compelling not only to those who already share the same views, but to outsiders as well, I see no reason to withhold the laurel of objectivity. 10 There is nothing objective about hurling imprecations at apostates or catechizing the faithful, but as long as the polemicist truly engages the thinking of the enemy he or she is being as objective as anyone. In contrast, the person too enamored of his or her own interpretation of things seriously and sympathetically to entertain alternatives, even for the sake of learning how best to defeat them, fails my test of objectivity, no matter how serene and even tempered. The most common failure of objectivity is preaching to the converted, proceeding in a manner that complacently presupposes the pieties of one's own coterie and makes no effort to appreciate or appeal to the perspectives of outsiders. In contrast, the most commonly observed fulfillment of the ideal of objectivity in the historical profession is simply the powerful argument-the text that reveals by its every twist and turn its respectful appreciation of the alternatives it rejects. Such a text attains power precisely because its author has managed to suspend momentarily his or her own perceptions so as to anticipate and take account of objections and alternative constructions -not those of some straw man, but those that truly issue from the rival's position, understood as sensitively and stated as eloquently as the rival him- or herself could desire. Nothing is rhetorically more powerful than this, and nothing, not even capitulation to the rival, could acknowledge any more vividly the force and respectability of the rival's perspective. To mount a telling attack on a position, one must first inhabit it. Those so habituated to their customary intellectual abode that they cannot even explore others can never be persuasive to anyone but fellow habitues. That is why powerful arguments are often more faithful to the complexity and fragility of historical interpretation - more faithful even to the irreducible plurality of human perspectives, when that is, in fact, the case -than texts that abjure position-taking altogether and ostentatiously wallow in displays of "reflexivity" and "undecidability." The powerful argument is the highest fruit of the kind of thinking I would call objective, and in it neutrality plays no part. Authentic objectivity has simply nothing to do with the television newscaster's mechanical gesture of allocating the same number of seconds to both sides of a question, or editorially splitting the difference between them, irrespective of their perceived merits

### predictability

#### No link to rules or predictability bad—our argument isn't rules-based in the sense they identify, it’s a set of contestable guidelines for evaluating competitions. Rejecting the topic because rules are oppressive doesn’t solve and only a standard like the resolution is limited enough to enable preparation and testing but has enough internal complexity to solve their impact

**Armstrong 2K** – Paul B. Armstrong, Professor of English and Dean of the College of Arts and Sciences at the State University of New York at Stony Brook, Winter 2000, “The Politics of Play: The Social Implications of Iser's Aesthetic Theory,” New Literary History, Vol. 31, No. 1, p. 211-223

\*aleatory = depending on luck, i.e. the throw of a die

Such a play-space also opposes the notion that the only alternative to the coerciveness of consensus must be to advocate the sublime powers of rule-breaking.8 Iser shares Lyotard’s concern that to privilege harmony and agreement in a world of heterogeneous language games is to limit their play and to inhibit semantic innovation and the creation of new games. Lyotard’s endorsement of the “sublime”—the pursuit of the “unpresentable” by rebelling against restrictions, defying norms, and smashing the limits of existing paradigms—is undermined by contradictions, however, which Iser’s explication of play recognizes and addresses. The paradox of the unpresentable, as Lyotard acknowledges, is that it can only be manifested through a game of representation. The sublime is, consequently, in Iser’s sense, an instance of doubling. If violating norms creates new games, this crossing of boundaries **depends on** and carries in its wake the conventions and structures it oversteps. The sublime may be uncompromising, asocial, and unwilling to be bound by limits, but its pursuit of what is not contained in any order or system makes it dependent on the forms it opposes. ¶ The radical presumption of the sublime is not only terroristic in refusing to recognize the claims of other games whose rules it declines to limit itself by. It is also naive and self-destructive in its impossible imagining that it can do without the others it opposes. As a structure of doubling, the sublime pursuit of the unpresentable requires a play-space that includes other, less radical games with which it can interact. Such conditions of exchange would be provided by the nonconsensual reciprocity of Iserian play. ¶ Iser’s notion of play offers a way of conceptualizing power which acknowledges the necessity and force of disciplinary constraints without seeing them as unequivocally coercive and determining. The contradictory combination of restriction and openness in how play deploys power is evident in Iser’s analysis of “regulatory” and “aleatory” rules. Even the regulatory rules, which set down the conditions participants submit to in order to play a game, “permit a certain range of combinations while also establishing a code of possible play. . . . Since these rules limit the text game without producing it, they are regulatory but not prescriptive. They do no more than set the aleatory in motion, and the aleatory rule differs from the regulatory in that it has no code of its own” (FI 273). Submitting to the discipline of regulatory restrictions is both constraining and enabling because it makes possible certain kinds of interaction that the rules cannot completely predict or prescribe in advance. Hence the existence of aleatory rules that are not codified as part of the game itself but are the variable customs, procedures, and practices for playing it. Expert facility with aleatory rules marks the difference, for example, between someone who just knows the rules of a game and another who really knows how to play it. Aleatory rules are more flexible and openended and more susceptible to variation than regulatory rules, but they too are characterized by a contradictory combination of constraint and possibility, limitation and unpredictability, discipline and spontaneity.

### at: fairness rigged

#### The argument that our framework is systemically biased is a self-serving assertion to avoid clash—all of their reasons not to defend the topic can be appropriated by actors with opposite goals

**Talisse 2005** – philosophy professor at Vanderbilt (Robert, Philosophy & Social Criticism, 31.4, “Deliberativist responses to activist challenges”) \*note: gendered language in this article refers to arguments made by two specific individuals in an article by Iris Young

My call for a more detailed articulation of the second activist challenge may be met with the radical claim that I have begged the question. It may be said that my analysis of the activist’s challenge and my request for a more rigorous argument presume what the activist denies, namely, that arguments and reasons operate independently of ideology. Here the activist might begin to think that he made a mistake in agreeing to engage in a discussion with a deliberativist – his position throughout the debate being that one should decline to engage in argument with one’s opponents! He may say that of course activism seems lacking to a deliberativist, for the deliberativist measures the strength of a view according to her own standards. But the activist rejects those standards, claiming that they are appropriate only for seminar rooms and faculty meetings, not for real-world politics. Consequently the activist may say that by agreeing to enter into a discussion with the deliberativist, he had unwittingly abandoned a crucial element of his position. He may conclude that the consistent activist avoids arguing altogether, and communicates only with his comrades. Here the discussion ends.

However, the deliberativist has a further consideration to raise as his discursive partner departs for the next rally or street demonstration. The foregoing debate had presumed that there is but one kind of activist and but one set of policy objectives that activists may endorse. Yet Young’s activist is opposed not only by deliberative democrats, but also by persons who also call themselves ‘activists’ and who are committed to a set of policy objectives quite different from those endorsed by this one activist. Once these opponents are introduced into the mix, the stance of Young’s activist becomes more evidently problematic, even by his own standards.

To explain: although Young’s discussion associates the activist always with politically progressive causes, such as the abolition of the World Trade Organization (109), the expansion of healthcare and welfare programs (113), and certain forms of environmentalism (117), not all activists are progressive in this sense. Activists on the extreme and racist Right claim also to be fighting for justice, fairness, and liberation. They contend that existing processes and institutions are ideologically hegemonic and distorting. Accordingly, they reject the deliberative ideal on the same grounds as Young’s activist. They advocate a program of political action that operates outside of prevailing structures, disrupting their operations and challenging their legitimacy. They claim that such action aims to enlighten, inform, provoke, and excite persons they see as complacent, naïve, excluded, and ignorant. Of course, these activists vehemently oppose the policies endorsed by Young’s activist; they argue that justice requires activism that promotes objectives such as national purity, the disenfranchisement of Jews, racial segregation, and white supremacy. More importantly, they see Young’s activist’s vocabulary of ‘inclusion’, ‘structural inequality’, ‘institutionalized power’, as fully in line with what they claim is a hegemonic ideology that currently dominates and systematically distorts our political discourses.21

The point here is not to imply that Young’s activist is no better than the racist activist. The point rather is that Young’s activist’s arguments are, in fact, adopted by activists of different stripes and put in the service of a wide range of policy objectives, each claiming to be just, liberatory, and properly inclusive.22 In light of this, there is a question the activist must confront. How should he deal with those who share his views about the proper means for bringing about a more just society, but promote a set of ends that he opposes?

It seems that Young’s activist has no way to deal with opposing activist programs except to fight them or, if fighting is strategically unsound or otherwise problematic, to accept a Hobbesian truce. This might not seem an unacceptable response in the case of racists; however, the question can be raised in the case of any less extreme but nonetheless opposed activist program, including different styles of politically progressive activism. Hence the deliberativist raises her earlier suspicions that, in practice, activism entails a politics based upon interestbased power struggles amongst adversarial factions.

## 1nr

### kappeler

**Kappeler concedes we can engage the state without ceding individual advocacy – it’s not an either/or choice**

**Kappeler 95** (Susanne, Associate Professor at Al-Akhawayn University, The Will to Violence: The politics of personal behavior, Pg.8)

Moreover, personal behavior is no alternative to ‘political action’; t**here is no question of either/or.** My concern, on the contrary, is the connection between these recognized forms of violence and the forms of everyday behavior which we consider ‘normal’ but which betray our own will to violence- the connection, in other words, between our own actions and those acts of violence which are normally the focus of our political critiques. Precisely because there is no choice between dedicating oneself either to ‘political issues’ or to ‘personal behavior’, the question of the politics of personal behavior has (also) to be moved into the centre of our politics and our critique.

#### Normative debate is valuable for its own sake—we can still win because these are interesting questions to discuss. They link to the impact more by over-determining what we think is at stake in each round

**West 9** (Robin West, Frederick J. Haas Professor of Law and Philosophy, Associate Dean for Research and Academic Programs, Georgetown Law, “Reply to Pierre,” 2009, Vol. 97:865. THE GEORGETOWN LAW JOURNAL, <http://georgetownlawjournal.org/files/pdf/97-3/West.PDF>) GANGEEZY

Why? What’s wrong with normativity? Pierre has given various answers in his twenty-year critique of normativity, but this new essay suggests yet an additional argument, which I think is wrong and merits a response. One reason for Pierre’s longstanding opposition to normativity, suggested by this essay, might be a suspicion—well-grounded—that the kind of normative questions asked, and certainly the answers given by MLS, will be, or are, or have always been in the past, imitative of the sorts of normative questions judges ask when deciding cases. Just as the truths about the world and the statements of law in MLS are basically imitative of judicial declarations of truth and law, so too are the political or moral claims about the way the world should look. And, for the same reasons, the normative questions that judges ask and the answers they give, as well as the empirical and legal questions they ask in the course of writing judicial opinions, will be—virtually by definition they must be— politically uninteresting, aesthetically unappealing, and intellectually deadening. And scholars imitate judges. So, mainstream normative jurisprudence is likewise politically uninteresting, aesthetically unappealing, and so on. As such, the problem with mainstream normative legal scholarship—MNLS—is that the normative questions it asks—what should the law be, what should the world look like, how might law contribute—imitate the normative questions asked by judges. Those latter questions, in turn, will be “truncated,” to use Unger’s term for the same phenomenon,12 or spam, to revert to Pierre’s. Spam normative questions about what the law and world should look like will invite spam answers. But if that’s the argument, there’s a pretty obvious problem with it, which Pierre’s essay itself clearly shows. Here’s the problem. Pierre may be right about the nature of normative questions posed and answered by judges. As virtually everyone who’s thought about it agrees, both judges and the scholars that imitate them, when explaining what the law is, have to also explain what the law should be. If we want to explain “the law” of compensation for injuries caused by badly manufactured products, we’re going to have to also say what we think “the law” ought to be, because “what it is” is just not all that clear. So, there’s some “normative” or “political” or “moral” analysis involved in even the most ordinary legal and adjudicative writing. Statements of “what the law is” will indeed include, perforce, a tad of “policy analysis,” a dabbling in costs and benefits, some philosophizing over fundamental values or basic principles, and at least some “weighing” of pros and cons between proffered alternatives. That dabbling will be spam-like, for the same reasons the judge’s various truth claims and statements of what the law is are such. And this is as true of imitative legal scholarship as it is of judicial opinion writing itself. The conclusion thus follows: if legal scholarship is spam, then so is its normative component. My objection to this Schlagian syllogism is just this: normative legal scholarship does not have to be so confined, and if anyone pays attention to Pierre’s essay, it won’t be. It doesn’t have to be imitative. It doesn’t have to be adjudication-lite. Legal scholars could ask, and I think should ask, normative questions about what the law should be, not so as to get a better grip on what the law is, and not so as to better imitate the cost-benefit policy analysis or the fundamental values analysis or the basic principles analysis or the pros-andcons reasoning that typifies adjudication; not, in brief, so as to better sway the court toward one possible legal result over another. Legal scholars could and I think should be asking what the law should be, and what it should not be; what our social world should look like, and what it should not look like; what of the law we have is an utter disaster, and what of the law we don’t have that we perhaps should have. And we could do all of this “normative analysis” not toward the end of figuring out what the law is—that is indeed what truncates or spamifies normative analysis13—but solely because these are important questions to ask.

#### Their critique of the un-reality of debate assumes some transcendent “true reality.” Arguing over legal change FORCES us to question ideas of reality to become more receptive to criticism itself—it’s still valuable to argue about problems and legal responses because their belief in a reality immune from thought is a false dualism and entrenches the mindsets they criticize

**Barton ‘3** Jane Barton, Law @ Temple- Beasley School of Law 2003 “Romancing the Real” 57 U Miami L. Rev. L/n 586-587

Yet, imagine that what Gordon said were true. There would be an easily discernable point to doing what we legal academics (and isn’t Schlag one of us?) do. If legal conceptions and the social world were connected in some way, then thinking about law would also be a way of thinking about the material world, and trying to change the way we think about law – for instance, to use my earlier example, trying to convince people that property need not be modeled on ownership but on obligation – would be a way of trying to change the material world. Questioning what legal doctrine foregrounds and backgrounds, revealing “nested oppositions” in legal rules, and all manner of similar analyses of the patterns and structure of standard legal argumentation, including the kinds of analyses Schlag himself has so often performed (consider *The Empty Circles of Liberal Justification)*, would, or could, at least potentially be useful; if we could see and make others see how we ourselves artificially “froze” reality, we could unfreeze it. At the very least, we could begin to think about changing it because we would no longer be victims of belief in reality’s immutability.

Twenty-plus years of engaging invarious versions of this practice have revealed how much more complicated all this is than it originally seemed. From Stanley Fish we learned how silly it might be to envision standing outside one’s own structures of belief in order to change them. From feminists and critical race theorists we learned that “we” might not be “we” but multiple intersecting and overlapping “we’s” with potentially differing interests and engagements. From law and society folks we learned to question whether there was any relation between lawyers’ and judges’ ideas about law and actual social practices; if there was little relation to begin with, changes in legal consciousness (even if “we” could actually effect such changes) would be unlikely to have much impact on everyday behaviors. None of this proves that legal change and social change are impossible, only that effecting social change through law is considerably more difficult and chancy than first had been thought. One could see, however, why it might be worth trying to solve (or work around) the problems: thinking about law would still be a way – perhaps now a more nuanced, humbled way – of trying to fix what was wrong with the world. This strategy would not work, of course, if “the world” is intractably out there, isolated from and immune to thought. That is exactly as Schlag presents the world in those excerpts and in the lists culled from them. The question is why, knowing better – that is, having no illusions about a pure factuality unmediated by perspective of shaping – Schlag would choose to portray “reality” that way.

### social death

#### Entrenches pessimism and despair, is overly reductionist and doesn’t solve

Brown 09 [Vincent Brown is Professor of History and of African and African-American Studies at Harvard University. AMERICAN HISTORICAL REVIEW, DECEMBER 2009 <http://history.fas.harvard.edu/people/faculty/documents/brown-socialdeath.pdf> //liam]

Slavery and Social Death was widely reviewed and lavishly praised for its erudition and conceptual rigor. As a result of its success, social death has become a handy general deﬁnition of slavery, for many historians and non-historians alike. But it is often forgotten that the concept of social death is a distillation from Patterson’s breathtaking survey—a theoretical abstraction that is meant not to describe the lived experiences of the enslaved so much as to reduce them to a least common denominator that could reveal the essence of slavery in an ideal-type slave, shorn of meaningful heritage. As a concept, it is what Frederick Cooper has called an “agentless abstraction” that provides a neat cultural logic but ultimately does little to illuminate the social and political experience of enslavement and the struggles that produce historic transformations. Indeed, it is difﬁcult to use such a distillation to explain the actual behavior of slaves, and yet in much of the scholarship that followed in the wake of Slavery and Social Death, Patterson’s abstract distillates have been used to explain the existential condition of the enslaved. Having emerged from the discipline of sociology, “social death” ﬁt comfortably within a scholarly tradition that had generally been more alert to deviations in patterns of black life from prevailing social norms than to the worldviews, strategies, and social tactics of people in black communities. Together with Patterson’s work on the distortions wrought by slavery on black families, “social death” reﬂected sociology’s abiding concern with “social pathology”; the “pathological condition” of twentieth-century black life could be seen as an outcome of the damage that black people had suffered during slavery.University of Chicago professor Robert Park, the grand-pe`re of the social pathologists, set the terms in 1919: “the Negro, when he landed in the United States, left behind almost everything but his dark complexion and his tropical temperament.” 8 Patterson’s distillation also conformed to the nomothetic imperative of social science, which has traditionally aimed to discover universal laws of operation that would be true regardless of time and place, making the synchronic study of social phenomena more tempting than more descriptive studies of historical transformation. Slavery and Social Death took shape during a period when largely synchronic studies of antebellum slavery in the United States dominated the scholarship on human bondage, and Patterson’s expansive view was meant to situate U.S. slavery in a broad context rather than to discuss changes as the institution developed through time. Thus one might see “social death” as an obsolete product of its time and tradition, an academic artifact with limited purchase for contemporary scholarship, were it not for the concept’s reemergence in some important new studies of slavery. 9 WIDELY ACKNOWLEDGED AS AMONG themost onerous of social institutions, slavery has much to tell us about the way human beings react to oppression. At the same time, the extreme nature of the institution naturally encourages a pessimistic view of the capacity for collective agency among subjugated people. As a result, trends in the study of slavery, as with the study of dominancemore generally, often divide between works that emphasize the overwhelming power of the institution and scholarship that focuses on the resistant efforts of the enslaved. In turn, this division frames a problem in the general understanding of political life, especially for the descendants of the powerless. It might even be said that these kinds of studies form different and opposing genres—hopeful stories of heroic subalterns versus anatomies of doom—that compete for ascendance. In recent years, if the invocation of Patterson’s “social death” is any indication, the pendulum seems to have swung decidedly toward despair.

#### Social death is theoretically bankrupt – doesn’t provide an alternative and Their hard ontological descriptions make fatalism inevitable –

Bâ'11  (teaches film at Portsmouth University (UK). He researches ‘race’, the ‘postcolonial’,  diaspora,  the  transnational  and  film  ‘genre’,  African  and  Caribbean cinemas  and film festivals)

(Saër Maty, The US Decentred, Cultural Studies Review, volume 17 number 2 September 2011)

A few pages into Red, White and Black, I feared that it would just be a matter of time before Wilderson’s black‐as‐social‐death idea and multiple attacks on issues and scholars he disagrees with run (him) into (theoretical) trouble. This happens in chapter two, ‘The Narcissistic Slave’, where he critiques black film theorists and books. For example, Wilderson declares that Gladstone Yearwood’s Black Film as Signifying Practice (2000) ‘betrays a kind of conceptual anxiety with respect to the historical object of study— ... it clings, anxiously, to the film‐as‐text‐as‐legitimate‐ object of Black cinema.’ (62) He then quotes from Yearwood’s book to highlight ‘just how vague the aesthetic foundation of Yearwood’s attempt to construct a canon can be’. (63) And yet Wilderson’s highlighting is problematic because it overlooks the ‘Diaspora’ or ‘African Diaspora’, a key component in Yearwood’s thesis that, crucially, neither navel‐gazes (that is, at the US or black America) nor pretends to properly engage with black film. Furthermore, Wilderson separates the different waves of black film theory and approaches them, only, in terms of how a most recent one might challenge its precedent. Again, his approach is problematic because it does not mention or emphasise the inter‐connectivity of/in black film theory. As a case in point, Wilderson does not link Tommy Lott’s mobilisation of Third Cinema for black film theory to Yearwood’s idea of African Diaspora. (64) Additionally, of course, Wilderson seems unaware that Third Cinema itself has been fundamentally questioned since Lott’s 1990s’ theory of black film was formulated. Yet another consequence of ignoring the African Diaspora is that it exposes Wilderson’s corpus of films as unable to carry the **weight of the transnational argument he attempts to advance**. Here, beyond the US‐centricity or ‘social and political specificity of [his] filmography’, (95) I am talking about Wilderson’s choice of films. For example, Antwone Fisher (dir. Denzel Washington, 2002) is attacked unfairly for failing to acknowledge ‘a grid of captivity across spatial dimensions of the Black “body”, the Black “home”, and the Black “community”’ (111) while films like Alan and Albert Hughes’s Menace II Society (1993), overlooked, do acknowledge the same grid and, additionally, problematise Street Terrorism Enforcement and Prevention Act (STEP) policing. The above examples expose the fact of Wilderson’s dubious and questionable conclusions on black film. Red, White and Black is particularly undermined by Wilderson’s propensity for exaggeration and blinkeredness. In chapter nine, ‘“Savage” Negrophobia’, **he writes: The philosophical anxiety of Skins is all too aware that through the Middle Passage, African culture became Black ‘style’ ... Blackness can be placed and displaced with limitless frequency and across untold territories, by whoever so chooses. Most important, there is nothing real Black people can do to either check or direct this process** ... Anyone can say ‘nigger’ because anyone can be a ‘nigger’. (235)7 Similarly, in chapter ten, ‘A Crisis in the Commons’, Wilderson addresses the issue of ‘Black time’. Black is irredeemable, he argues, because, at no time in history had it been deemed, or deemed through the right historical moment and place. In other words, the black moment and place are not right because they are ‘the ship hold of the Middle Passage’: ‘the most coherent temporality ever deemed as Black time’ but also ‘the “moment” of no time at all on the map of no place at all’. (279) Not only does **Pinho’s more mature analysis expose this point as** preposterous (see below), **I also wonder what Wilderson makes of the countless historians’ and sociologists’ works on slave ships, shipboard insurrections and/during the Middle Passage,8 or of groundbreaking jazz‐studies books on cross‐cultural dialogue** like The Other Side of Nowhere (2004). Nowhere has another side, but once Wilderson theorises blacks as socially and ontologically dead while dismissing jazz as ‘belonging nowhere and to no one, simply there for the taking’, (225) there seems to be no way back. **It is therefore hardly surprising that Wilderson ducks the need to provide a solution or alternative to both his sustained bashing of blacks and anti‐ Blackness**.9 Last but not least, Red, White and Black ends like a badly plugged announcement of a bad Hollywood film’s badly planned sequel: ‘How does one deconstruct life? Who would benefit from such an undertaking? The coffle approaches with its answers in tow.’ (340)

### churchill

#### Churchill creates a hierarchy of suffering that erases other historical tragedies from existence

Michael Rothberg, 2004, Associate Professor of English and Comparative Literature – University of Illinois-Urbana, “The Work of Testimony in the Age of Decolonization,” PMLA 119.5

In the decades following the Eichmann trial, the Holocaust came to be understood in the popular imagination, especially in Europe, Israel, and North America, as the unique, sui generis event that Ben-Gurion described. In its extremity, it is sometimes even defined as only marginally connected to the course of human history. Thus, Elie Wiesel has written that “the Holocaust transcends history” (158), and Claude Lanzmann has claimed that “there is an unbreachable discrepancy” between any of the Holocaust’s possible historical causes and the ultimate unfolding of the events (206). Even arguments for uniqueness grounded in history sometimes tend toward ahistorical hyperbole. In an essay that seeks to differentiate the Nazi genocide from “the case of the Native Americans,” “the famine in the Ukraine” under Stalin, and “the Armenian tragedy,” Steven Katz argues that the “historically and phenomenologically unique” character of the Holocaust ensures that the Nazi genocide will differ from “every case said to be comparable to” it (49–50). At the same time that this understanding of the Nazi genocide has emerged, and in direct response to it, intellectuals interested in indigenous, minority, and colonial histories, as well as some involved in Holocaust studies, have challenged the uniqueness of the Holocaust and fostered research into other histories of extreme violence, ethnic cleansing, and genocide.6 Many of these intellectuals have argued that,while it is essential to understand the specificity of the Nazi genocide (as of all histories), separating it from other histories of collective violence—and even from history as such—is intellectually and politically dangerous. The dangers of the uniqueness discourse are that it potentially creates a hierarchy of suffering (a morally offensive result) and removes suffering from the field of historical agency (a morally and intellectually suspect result).7 Proponents of uniqueness and their critics both tend to understand memory of the Holocaust as competing with that of other histories. Thus, on the one hand, the proponents assiduously search out and refute all attempts to compare or analogize the Holocaust, aiming to preserve memory of it from dilution or relativization. Deborah Lipstadt, a leading scholar studying the phenomenon of Holocaust denial, suggests links between those who relativize the Shoah through comparison and analogy and those who deny its existence; both groups, she argues, blur the “boundaries between fact and fiction and between persecuted and persecutor” (215). Blurring is also a concern of the literary critic Richard Golsan. In a discussion of the trial of Maurice Papon, a French police secretary general during the Vichy period, Golsan worries that comparison between French complicity in the deportation of Jews and French persecution of Algerians during decolonization, with which Papon was also involved, “could only deflect the focus from the Vichy past and, more significant, blur the specificity of the Final Solution” (20–21). On the other hand, critics of uniqueness often argue that the ever-increasing interest in the Nazi genocide distracts from the consideration of other historical tragedies. In one of the more extreme versions of this argument, David Stannard asserts that the uniqueness argument “willingly provides a screen behind which opportunistic governments today attempt to conceal their own past and ongoing genocidal actions” (250). There is some truth in both these views. Relativization and banalization of the Holocaust do take place, although perhaps more frequently at the hands of a culture industry that seeks to exploit its currency than among marginal or oppositional intellectuals and activists. Conversely, undue stress on the singularity of the Holocaust at the expense of its similarities with other events can block recognition of past as well as present genocides, if not generally with the full intentionality implied by Stannard—this is one of the lessons of Samantha Power’s convincing study “A Problem from Hell.” In summing up her account of American response to the threat and actuality of genocide in the twentieth century, Power writes, “Perversely, America’s public awareness of the Holocaust often seemed to set the bar for concern so high that we were able to tell ourselves that contemporary genocides were not measuring up” (503). An overly rigid focus on memory competition, however, distracts from other ways of thinking about the relation between histories and their memorial legacies. Memory is not a zero-sum game.8 In place of memory competition, I propose a concept of multidirectional memory, which recognizes the dynamic transfers that take place between diverse places and times during remembrance. Instead of proceeding from the assumption that the presence of one history in collective memory entails the erasure or dilution of all others, this essay pays close attention to the circulation of historical memories in encounters whose meanings are complex and overdetermined. The purpose is both to think the Holocaust beyond the uniqueness paradigm and to draw attention to the particular, multidirectional forms of overlap in memory and discourse among the Holocaust and other histories during the age of decolonization. If, as I argue, the Eichmann trial was not the only significant force that propelled the Holocaust into the public sphere but did set the stage for the discourse of uniqueness, returning to a moment before the trial’s effect was felt may prove instructive in breaking apart the ossified positions in the memory wars.

#### Memory isn't zero sum

Michael Rothberg, 2006, Associate Professor of English and Director of the Unit for Criticism and Interpretive Theory at the University of Illinois at Urbana-Champaign, “Against Zero-Sum Logic: A Response to Walter Benn Michaels,” American Literary History 18.2 (2006) 303-311

Michaels's readings of The Plot Against America and Maus and, more generally, of the place of the Holocaust, anti-Semitism, and anti-racism in neoliberal America seem to obey a zero-sum logic that I have elsewhere called competitive memory.4 As we've seen, Michaels states quite directly that remembering the Holocaust—or, in this case, creating literary works that in very different ways invoke the Holocaust—is "in fact another kind of Holocaust denial," because it entails not remembering slavery or the genocide of Native Americans. This widespread understanding of memory is actually shared both by critics of the Holocaust's place in American life and by proponents of Holocaust memory. Members of both groups seem to agree that invoking one history blots out another—or, as Michaels puts it à propos of The Plot Against America, "Why should we be outraged by what didn't happen rather than outraged by what did?" But is this really the way that memory and sympathy—not to mention fiction—work? Do we really only remember one thing at a time, friends and not enemies, white and not black? Michaels's version of competitive memory—speaking about the Holocaust is a form of Holocaust denial—functions something like what Foucault calls the repressive hypothesis. As is well known, Foucault argues that the notion of sexual prohibition in the Victorian age should not be made "into the basic and constitutive element" in a history of sexuality because "negative elements" were "only component parts" within a larger incitement and dissemination of discourses on sexuality (12). Similarly, I would argue, the negative elements of the competitive memory hypothesis are only component parts of a larger dissemination of memory discourses. Memory is productive and multidirectional; it is not privative.

#### Voting AFF doesn’t solve – suppressing us isn’t the answer

**King 2k9** (Richard, “Some Academics Try to Push Back: Ward Churchill, the War on Truth, and the Improbabilities of Interruption” Cultural Studies <=> Critical Methodologies 2009 9: 31)

Increasingly, scholars engaged in cultural studies and critical inquiry stress the importance of active intervention, encouraging the interweaving of (com)passion, politics, and practice to craft a more meaningful role for intellectuals in the public sphere. They author blogs, organize collective actions, stage teach-ins, promote anticorporate boycotts, participate in protests, and otherwise trouble established relations and accepted understandings. Although I embrace the desires, if not always the designs, associated with these undertakings and have elsewhere endorsed more connected and critical work, the dominant structure of feeling in the contemporary United States dampens, and at times even douses, my hopefulness. In many respects, the quickening of neoconservative retrenchments and resentments after 9/11 intensified the tone and extended the terrain of the prevailing culture wars, at once further limiting public receptiveness to cultural critique and curtailing the capacity of intellectuals to reframe and resist accepted understandings of world events, social stratifications, and cultural differences. Against the backdrop of corporate media conglomerates and conservative “common sense” incessantly reiterating sincere fictions discouraging thought, let alone dissent, academic disciplines and institutions supposedly devoted to objective inquiry, critical reflection, and human betterment have too often willingly accepted the monetary and moral rewards of emphasizing homeland security, combating insurgency, and otherwise contributing to the war effort. Consequently, few scholars have actively or openly spoken out against the forms of terror and the norms of war or their differential impact on bodies, beliefs, and behaviors here and there. And those who do, when they are heard, have found themselves policed and pilloried by an outraged public incited to panic by pundits and politicians alike. In fact, as much as we might like to interrupt historical flows and challenge unequal social arrangements, these are dismal days, fraught with danger, which foster more disillusionment than disruption. To tease out the improbabilities, if not impossibilities, of meaningful disruptions, I concentrate on Ward Churchill and the popular panic caused by his efforts to reframe 9/11. Although suspect in certain segments of Indian Country for his purportedly false claims to Indianness, Churchill, a professor of ethnic studies at the University of Colorado, has occupied a prominent place as a public intellectual for more than a decade. Long a vocal critic of American empire and the history of EuroAmerican–Indigenous relations, he seemingly delighted in unsettling naturalized narratives of nation, history, and identity. After 9/11, however, neither his radical rhetoric nor his academic toolkit offered an adequate defense to the convergence of new media, neoimperialism, and neoconservativism around the notion of civilization and those hostile to it, marrying the culture war to the war on terror to discredit and dehumanize him. Indeed, as I elaborate in what follows, the Churchill Affair points to a quickening of what Denzin and Giardina (2006) term “ the conservative challenge,” intent to demonize dissent and curb critical inquiry.

the person whose behaviors most mirror the racial caricatures of that group.

# octos neg v. northwestern mp

## 1nc

### DA

#### Hagel will ONLY get through because of political capital—the plan changes this

Michael Falcone (writer for ABC News) 1/7, 2013 “Cabinet Shakeup: No Such Thing As A ‘Slam Dunk’ (The Note)” http://abcnews.go.com/blogs/politics/2013/01/cabinet-shakeup-no-such-thing-as-a-slam-dunk-the-note/

But as ABC Chief White House Correspondent Jon Karl notes today, the confirmation of Hagel, a former Republican senator, “will be no slam dunk”: “Senate Democrats tell me there is no guarantee Hagel will win confirmation and that, as of right now, there are enough Democratic Senators with serious concerns about Hagel to put him below 50 votes. The bottom line: He may ultimately win confirmation, but not before a bloody fight in the Senate. On the plus side, Hagel is a decorated Vietnam veteran and a former Republican Senator who’s views on military issues closely match the president’s views. But he has already come under withering criticism from across the political spectrum. Among other things, he has come under fire for controversial comments on Israel (in 2008, he referred to Israel’s US supporters as ‘the Jewish lobby’), his opposition to some sanctions against Iran, and his suggestion, also in 2008, that the U.S. should negotiate with Hamas.” Time Magazine’s Mark Halperin had a similar prediction: “If Hagel has a good confirmation sherpa and performs well in his courtesy calls and at his hearings, he will likely be confirmed. But/and at a pretty high cost. Expect a LOT of people to want to testify against him. And don’t rule out a filibuster of this nomination, which would, obviously, change the math.” http://ti.me/VvwfU0 More on the rough road ahead for Hagel from ABC’s Martha Raddatz on”Good Morning America” today. WATCH: http://abcn.ws/VNTZBZ NOTED! ABC’s RICK KLEIN: It’s getting crowded in here. One consequence of the un-grand bargain is that Washington will be fighting fiscal battles again early this year — then likely later, too. The result is not just a feeling of déjà vu but of suffocation. Republicans and any coalition that wants to slow President Obama’s agenda — on immigration, gun control, energy policy**,** what have you — has the perfect way to do so now, perhaps indefinitely. “None of these issues, I think, will have the kind of priority that spending and debt are going to have over the next two or three months,” Senate Minority Leader Mitch McConnell said on ABC’s “This Week” yesterday. ABC’s AMY WALTER: For all the hand wringing about upcoming fights between the White House and Congress over Chuck Hagel, the debt ceiling and the sequester, a reminder that the two branches were designed to challenge each other. To be sure, this is a frustrating process— and one that has resulted in less than ideal outcomes. Voters say they like the idea of divided government, but they don’t like the reality of it. “THIS WEEK” REWIND: MCCONNELL: THE TAX ISSUE IS FINISHED. As President Obama and Republicans slowly approach the next round of deficit-reduction talks, Senate Minority Leader Mitch McConnell drew a line in the sand, in his interview with ABC’s George Stephanopoulos: no more tax increases. McConnell: “The tax issue is finished, over, completed. That’s behind us. Now the question is, what are we going to do about the biggest problem confronting our country and our future? And that’s our spending addiction. It’s time to confront it. The president surely knows that. I mean, he has mentioned it both publicly and privately. The time to confront it is now.” http://abcn.ws/Xbz4uz HEITKAMP: GUNG-CONTROL PROPOSALS ‘WAY IN EXTREME.’ After The Washington Post reported that Vice President Biden’s working group will press a broad gun-control agenday, newly elected Democratic Sen. Heidi Heitkamp, N.D., told ABC’s George Stephanopoulos those proposals would go to far. Heitkamp: “Let’s start addressing the problem. And to me, one of the issues that I think comes — screams out of this is the issue of mental health and the care for the mentally ill in our country, especially the dangerously mentally ill. And so we need to have a broad discussion before we start talking about gun control. … I think you need to put everything on the table, but what I hear from the administration — and if the Washington Post is to be believed — that’s way — way in extreme of what I think is necessary or even should be talked about. And it’s not going to pass.” GRETA VAN SUSTEREN GOES ON THE RECORD (WITH ABC NEWS): Fox News’ Greta Van Susteren has interviewed some of the biggest names in U.S. politics on her show, “On The Record,” but you’ll never guess who her dream guest dream political guest is. Van Susteren, who appeared on the “This Week” roundtable Sunday, answered viewer questions from Facebook and Twitter for an “All Politics is Social” web exclusive hosted by ABC’s Kaye Foley. About that dream guest, here’s her answer: “Bo, the first dog. I love animals. I’d love to be on Animal Planet. On Animal Planet you aren’t dealing with death and destruction and people fighting with each other all the time. To the extent that Bo is a part of politics, I’d love to interview Bo. Plus, I love the fact that he looks like he’s wearing white knee socks. Bo is my favorite.” WATCH the full interview: http://abcn.ws/13bVdfF THE BUZZ: with ABC’s Chris Good (@c\_good) SCOTUS RETURNS: GAY MARRIAGE, AFFIRMATIVE ACTION, VOTING RIGHTS. The Supreme Court returns to the bench today, and ABC’s Ariane de Vogue reports: The justices will hear two potentially blockbuster cases in March concerning gay marriage. One of the cases–Hollingsworth v. Perry–addresses whether there is a fundamental right to same-sex marriage. The other–Windsor v. United States–deals with the federal law that defines marriage as between a man and a woman. In both cases, the court will hear arguments on potential procedural obstacles that could stop it from getting to the core constitutional questions. The court will also hear a case challenging a key provision of the Voting Rights Act. Section 5 of the law says that certain states with a history of voter discrimination must clear any changes to their election laws with federal officials in Washington. Lawyers for Shelby County, Ala., are challenging the constitutionality of Section 5. The case, called Shelby County v. Holder, will be argued Feb. 27. The day before, the court will hear arguments in Maryland v. King, a case about whether Maryland officials can collect DNA from someone who has been arrested but not convicted of a crime. http://abcn.ws/WD3Fir SANDY AND THE CLIFF: WILL PAUL RYAN’S VOTES HAUNT HIM IN 2016? Paul Ryan voted in favor of the “fiscal cliff” tax deal but against a Hurricane Sandy relief bill that would add $9.7 billion in debt. ABC’s Shushannah Walshe reports on the potential implications for 2016: The two votes four years from now may mean nothing or could haunt Ryan if he decides to run for president in 2016, depending on who is battling for the nomination. The fiscal cliff vote could become an issue, particularly if his opponent is Florida Sen. Marco Rubio who could highlight the fact that Ryan voted for the measure while Rubio voted against it. The Sandy vote could also be resurrected if his rival is New Jersey Gov. Chris Christie who blasted members of his own party this week when Boehner decided not to vote on a $60 billion Sandy relief package after assuring lawmakers from the affected he states he would. … Will Ryan be more vocal on the looming battle to raise the debt ceiling? It will be one to watch. http://abcn.ws/Sb0YZE OBAMA’S VACATION BY THE NUMBERS. With President Obama returning from a nine-day vacation in Hawaii with family and friends, ABC’s Mary Bruce reports: Obama played FIVE rounds of golf with SEVEN different partners, spending roughly THIRTY hours on TWO different courses on Oahu. The president made FIVE early morning trips to the gym at the nearby Marine Base at Kaneohe Bay. … The Obamas ventured out for dinner with friends FOUR times, leaving their Kailua vacation home for gourmet Japanese meals at Nobu and Morimoto … The president interrupted his vacation for SIX days to negotiate the “fiscal cliff” in Washington. All told, he will have spent roughly FORTY hours on Air Force One flying between D.C. and Hawaii. http://abcn.ws/WA0xUx PELOSI: MORE TAXES IN NEXT CLIFF DEAL. The fiscal cliff isn’t quite over, and House Speaker Nancy Pelosi says tax revenues must be on the table as President Obama and congressional Republicans negotiate over how to avert budget sequestration. The Hill’s Mike Lillis reports: “‘In this legislation we had $620 billion, very significant … changing the high-end tax rate to 39.6 percent. But that is not enough on the revenue side,’ Pelosi told CBS’s Bob Schieffer in an interview taped Friday. Without offering many specifics, the California Democrat said she wants to scour the tax code for unnecessary loopholes and ‘unfair’ benefits that help those–either companies or individuals–who don’t need it.” http://bit.ly/WnUi5y CHUCK HAGEL: LET THE SNIPING BEGIN. Rumblings on Capitol Hill, already, are not good. Politico’s Scott Wong and Manu Raju report: “Sen. Lindsey Graham (R-S.C.), an Air Force reservist who serves on the Armed Services Committee that will consider the nod, said Hagel would hold the ‘most antagonistic’ views toward Israel of any defense secretary in U.S. history. … ‘It is a strange signal for the White House to send that they are willing to fight for Hagel but not Rice,’ one Senate Democratic aide said Sunday. ‘Democrats are not currently unified behind Hagel, and it will take some real work by the administration to get them there, if it’s even possible.’ ‘I can’t imagine why [Obama] would choose to burn his political capital on this nomination. For what? There is no constituency for Chuck Hagel,’ one senior GOP aide said. ‘Obama will expend every ounce of political capital he has to get him across the finish line. Dems will hate this.” <http://politi.co/VFMgc7>

#### Plan requires massive political capital

**Foust 11** (Jeff Foust, editor of the Space Review, “Making the Case, Again, for Space-Based Solar Power,” The Space Review, http://www.thespacereview.com/article/1978/1)

Missing from the rollout of the report was any strategy by the NSS or other organizations to raise awareness of SBSP and to win support for it from NASA, the DOE, or other agencies. It’s a task that, through no fault of their own, has become harder in recent weeks, both because of the prospects of significant automatic cuts in discretionary spending after the failure of the “supercommittee” to develop a deficit reduction plan, and the greater political scrutiny of solar and other DOE alternative energy programs in the wake of the bankruptcy of Solyndra, the terrestrial solar power company that was supported by over $500 million in federal loan guarantees. If it was tough raising support and funding before, it will be even harder in the near future with decreased budgets and increased skepticism. The IAA report makes the case that space-based solar power remains a good idea, at least on paper. If it’s ever to be more than that, though, it will require not just technical and economic breakthroughs, but political ones as well.

#### Turns every military advantage—Hagel is key to effective global threat management and avoiding overreach

Jessie Daniels (Truman National Security Project Fellow, worked in the US Senate) 1/7, 2013 “Chuck Hagel Nomination: A Look At the Security Threats He Will Face” http://www.policymic.com/articles/21946/chuck-hagel-would-be-a-defense-secretary-for-the-21st-century

As President Obama heads into his second term, and a new cabinet comes into shape, attention now focuses on the leading choice for Secretary of Defense: Chuck Hagel. As the Chairman of the Atlantic Council, and former Nebraska GOP Senator, Hagel certainly has the policy chops and political bona fides to take over the reins from the current Secretary Leon Panetta. The next secretary of defense will immediately be faced with managing American commitments and new priorities. The Pentagon will continue its rebalance — or "pivot" — toward the Asia-Pacific, where the U.S. has already been bolstering its presence in the region. At the same time, the next secretary of defense will preside over a transition in Afghanistan that insiders say appears harder than anticipated — both politically and operationally. Then there's the Middle East at large, which presents a separate set of challenges: Egypt's rocky political transitions, an intransigent Iran, and escalating violence in Syria. Key in managing the U.S. role in each and all of these situations is recognizing the limits of American power and influence. Fortunately, Hagel gets how complex the picture is, and would be committed to ensuring that the U.S. military does not become overextended yet again. America's commitments will also be shaped by Pentagon budget reforms. The Defense Department is scheduled to trim $487 billion in spending over the next decade. If the sequester cuts eventually do go into effect — the fiscal cliff deal only delayed them by two months — the Pentagon will face an additional $500 billion in cuts. If confirmed as the next secretary of defense, Hagel would already come into the position with the mindset that the Defense budget is "bloated." Moreover, his political experience on Capitol Hill would prove useful in guiding the department through reforms that, though necessary, are likely to be highly politicized and contentious. Aside from these near-term challenges, the next secretary of defense will also need to prepare for 21st century threats. Tomorrow's threats could just as easily come from non-state actors or take place in cyberspace. Issues once unconnected to national security — such as the environment — now play critical roles for America's military, as resource insecurity (like water or energy) can escalate the risk of conflict. During his time in the Senate and now at the Atlantic Council, Hagel has been a strategic thinker who understands the interconnectedness of an array of threats. He has demonstrated the ability to understand the terrain of these new battlefields, and would be well-prepared shape the military as it prepares for this new security environment. Considering the overall breadth and depth of his experience, Chuck Hagel would bring many relevant strengths to the table — which is all the more important, since the next Pentagon chief will find a full plate of challenges upon arrival.

### K

#### The affirmative frames existence in terms of human value – this ethic creates the world as standing reserve and legitimizes endless genocide – the only way to escape is voting neg to affirm the infinite value of all forms of Being

**Introna 9 –** Professor of Organization, Technology and Ethics at Lancaster University

(Lucas, “Ethics and the Speaking of Things,” *Theory, Culture & Society* 2009 vol 26 no 4, 25-46, dml)

In the ethics of hybrids our ethical relationship with things is determined beforehand by us, it is anthropocentric. In this encounter with things we have already chosen, or presumed, the framework of values that will count in determining moral signiﬁcance. In this ethics, things are always and already ‘things-for-us’ – objects for our use, in our terms, for our purposes. They are always inscribed with our intentionality – they carry it in their ﬂesh, as it were. The deﬁning measure of the ethics of hybrids is the human being – the meaning of the Latin root of ‘man’ is measure. Indeed our concern for things is what they might do to us humans, as was suggested above. Our concern is not our instrumental use of them, the violence of our inscriptions in/on them, but that such scripts may ultimately harm us. As things-for-us, or ‘objects’ as we will refer to them, they have no moral signiﬁcance as such. In the value hierarchy of the modern ethical mind they are very far down the value line. What could be less morally signiﬁcant than an inanimate object? Their moral signiﬁcance is only a derivative of the way they may circulate the network as inscriptions for utility or enrolment. For example, they may become valuable if they can be sold in a market where they are valued, as is the case with works of art. The magnitude and diversity of our projects are mirrored in the magnitude and diversity of the objects that surround us. As things-for-us they are at our disposal – if they fail to be useful, or when our projects drift or shift, we ‘dump’ them. Images of endless ‘scrap’ heaps at the edges of our cities abound. Objects are made/inscribed, used and ﬁnally dumped. We can dispose of them because we author-ized them in the ﬁrst place. Increasingly we design them in such a way that we can dispose of them as effortlessly as possible. Ideally, their demise must be as invisible as possible. Their entire moral claim on our conscience is naught, it seems. One can legitimately ask why should we concern ourselves with things in a world where the ethical landscape is already overcrowded with grave and pressing matters such as untold human suffering, disappearing bio-diversity and ozone layers – to name but a few. It is our argument that our moral indifference to so many supposedly signiﬁcant beings (humans, animals, nature, etc.) starts with the idea that there are some beings that are less signiﬁcant or not signiﬁcant at all. More originally it starts with a metaphysics that has as its centre – the ultimate measure – us human beings – a metaphysics which has been at the heart of Western philosophy ever since Plato (Heidegger, 1977a). Thus, when we start our moral ordering we tend to value more highly things like us (sentient, organic/natural, alive, etc.) and less highly, or not at all, things most alien to us (non-sentient, synthetic/artiﬁcial, inanimate, etc.). It is our argument that one of the reasons why this anthropocentric ethics of things fails is because it assumes that we can, both in principle and in practice, draw a deﬁnitive boundary between the objects (them) and us. Social studies of science and technology have thrown severe doubt on such a possibility. If it is increasingly difﬁcult to draw the boundary between our objects and us, and if in this entangled network of humans and non-humans objects lack moral signiﬁcance from the start, then it is rather a small step to take for an ethics to emerge in which all things – human and non-human alike – circulate as object**s**: ‘things-for-the-purposes-of’ the network. In ordering society as assemblages of humans and objects we ultimately also become ordered as a ‘for-the-purposes-of’. Thus, the irony of an anthropocentric ethics of things is that ultimately we also become ‘objects’ in programmes and scripts, at the disposal of a higher logic (capital, state, community, environment, etc.). In the network, others and our objects ‘objectify’ us. For example, I cannot get my money out from the bank machine because I forgot my PIN number. Until I identify myself in its terms (as a ﬁve digit number) I am of no signiﬁcance to it. Equally, if I cannot prove my identity by presenting inscribed objects (passport, drivers licence) I cannot get a new PIN number. In Heidegger’s (1977b) words we have all become ‘standing reserve’, on ‘stand by’ for the purposes of the network – enframed (Gestell) by the calculative logic of our way of being. Enframed in a global network that has as its logic to control, manipulate and dominate: ‘Enframing is the gathering together which belongs to that setting-upon which challenges [hu]man and puts him in position to reveal the actual, in the mode of ordering, as standing-reserve’ (Heidegger, 1977a: 305). The value hierarchy presumed in an anthropocentric ethics is in fact a dynamic network of values and interests – there never was a hierarchy. The fate of our objects becomes our fate. In the ethics of hybrids we are also already objects – indeed everything is already object. Instead of a hierarchy of values we ﬁnd a complete nihilism in which everything is leveled out, everything is potentially equally valuable/valueless; a nihilistic network in which ‘the highest values devaluate themselves’ (Nietzsche, 1967: 9). If this is so, then we would argue that we should not ‘extend’ our moral consideration to other things, such as inanimate objects – in a similar manner that we have done for animals and other living things, in environmental ethics for example. In other words we should not simply extend the reach of what is considered morally signiﬁcant to include more things. Rather, we should abandon all systems of moral valuing and admit, with Heidegger, that in ‘the characterisation of something as “a value” what is so valued is robbed of its worth’ and admit that ‘what a thing is in its Being is not exhausted by its being an object, particularly when objectivity takes the form of value’, furthermore, that ‘every valuing, even where it values positively, is a subjectivising’ (Heidegger, 1977a: 228). We must abandon ethics for a clearing beyond ethics – to let beings be in their own terms. We must admit that any attempt at humanistic moral ordering – be it egocentric, anthropocentric, biocentric (Goodpaster, 1978; Singer, 1975) or even ecocentric (Leopold, 1966; Naess, 1995) – will fail. Any ethics based on us will eventually turn everything into our image, pure will to power (Heidegger, 1977a, 1977b). As Lingis (1994: 9) suggests: ‘The man-made species we are, which produces its own nature in an environment it produces, ﬁnds nothing within itself that is alien to itself, opaque and impervious to its own understanding’ (emphasis added). Instead of creating value systems in our own image, the absolute otherness of every other should be the only moral imperative. We need an ethics of things that is beyond the self-identical-ness of human beings. Such an ethics beyond metaphysics needs as its ‘ground’ not a system for comparison, but rather a recognition of the impossibility of any comparison – every comparison is already violent in its attempt to render equal what could never be equal (Levinas, 1991 [1974]). How might we encounter the other in its otherness? Levinas (1991 [1974], 1996, 1999) has argued for the radical singularity of our fellow human beings. But what about all other others? In the next section we will argue that Heidegger, especially as presented in the work of Harman (2002, 2005), might provide us with some hints towards the overcoming of ethics, towards an ethos of letting-be of all beings.

### T

#### Interpretation – ‘in the United States’ excludes energy produced outside of US airspace

Rense (citing US code under the 14th amendment) February 2008 “McCain Not A US Citizen,

Can't Be President?” <http://rense.com/general81/cain.htm>

Excerpted from http://www.state.gov/documents/organization/86755.pdf 7 FAM 1116 KEY PHRASES USED IN THE 14th AMENDMENT AND IN LAWS DERIVED FROM IT 7 FAM 1116.1 "In The United States" 7 FAM 1116.1-1 States and Incorporated Territories (TL:CON-64; 11-30-95) a. The phrase "in the United States" as used in the 14th Amendment clearly includes States that have been admitted to the Union. Sections 304 and 305 of the INA provide a basis for citizenship of persons born in Alaska and Hawaii while they were territories of the United States. These sections reflect, to a large extent, prior statutes and judicial decisions which addressed the l4th Amendment citizenship implications of birth in these and other U.S. territories. Guidance on evidence on such births should be sought from CA/OCS. b. Sec. 101(a)(38) INA provides that, for the purposes of the INA, The term "United States",... when used in the geographical sense, means the continental United States, Alaska, Hawaii, Puerto Rico, Guam, and the Virgin Islands of the United States.In addition, under Pub. L. 94-241, the "approving Covenant to Establish a Commonwealth of the Northern Mariana Islands in Political Union with the United States of America", (Sec. 506(c)), which took effect on November 3, 1986, the Northern Mariana Islands are treated as part of the United States for the purposes of sections 301 and 308 of the INA. c. All of the aforenamed areas, except Guam and the Northern Mariana Islands, came within the definition of "United States" given in the Nationality Act of 1940, which was effective from January 13, 1941 through December 23, 1952. d. Prior to January 13, 1941, there was no statutory definition of "the United States" for citizenship purposes. Thus there were varying interpretations. Guidance should be sought from the Department (CA/OCS) when such issues arise. Here are the exemptions... 7 FAM 1116.1-4 Not Included in the Meaning of "In the United States" (TL:CON-64; 11-30-95) a. A U.S.-registered or documented ship on the high seas or in the exclusive economic zone is not considered to be part of the United States. A child born on such a vessel does not acquire U.S. citizenship by reason of the place of birth (Lam Mow v. Nagle, 24 F.2d 316 (9th Cir., 1928)). b. A U.S.-registered aircraft outside U.S. airspace is not considered to be part of U.S. territory. A child born on such an aircraft outside U.S. airspace does not acquire U.S. citizenship by reason of the place of birth.

#### Violation - The production of electricity occurs in space – THEN its transferred to stations ‘in the United States’

George Dvorsky (serves as Chair of the IEET (Institute for Emerging Ethics and Technology) Board of Directors and also heads our Rights of Non-Human Persons program) November 2012 “How space-based solar power will solve all our energy needs” http://io9.com/5963955/how-space+based-solar-power-will-solve-all-our-energy-needs

Back in the late 1960s, Peter Glaser proposed the idea of solar powered satellites (SPS), what he envisioned as space-based photovoltaics that could transfer energy wirelessly back down to Earth. His design called for a large platform positioned in space in a high Earth orbit that would continuously collect and convert solar energy into electricity. In turn, that power would be used to drive a wireless power transmission (WPT) that beams the solar energy to receiving stations on Earth — what would be comprised of massive receiving dishes.

#### Voting issue

#### First – limits – there are an infinite number of different locations energy can be produced and then transmitted to the united states. This includes every different country. Plans could fiat bilateral agreements to buy any form of energy – creating factorial combinations of every aff on the topic.

#### Second – Ground – eliminates US specific environment DA’s and allows the aff to generate unpredictable relations advantages based on the attempt to purchase energy. Artificially jettisons core links to politics and counterplan arguments.

### DA

#### Space policy is mitigating conflict through cooperation and tech restraint

**Huntley 11** – senior lecturer in the National Security Affairs department at the Naval Postgraduate School in Monterey, California (Wade, “The 2011 U.S. National Space Security Policy: Engagement as a Work in Progress”, Disarmament Times, Spring, http://disarm.igc.org/index.php?option=com\_content&view=article&id=429:the-2011-us-national-space-security-policy-engagement-as-a-work-in-progress&catid=154:disarmament-times-spring-2011&Itemid=2)

This background is essential for appreciating how the space policies of the Obama administration are beginning to genuinely break new trails. The U.S. National Space Policy issued in June 2010 has been widely recognized for its cooperative and multilateral tone, including as explicit near-term goals the expansion of international cooperation on all activities and pursuing international as well as national measures to enhance space stability. Particularly notable are the document’s emphasis on orienting U.S. “leadership” toward fostering international cooperation, and its references, in its concluding section, to cooperation with other states and non-state actors in the pursuit of national security space objectives.3

Less broadly noticed was this policy’s clarity and coherence in articulating a vision for U.S. space activities on its own terms.  The document is organized around core principles, subsidiary goals and implementing guidelines that exceed its predecessors in delineating a longer-term direction for U.S. space policy that is integrated with, rather than derivative of, broader U.S. global aims.4 The policy also was generated and issued far earlier in the tenure of the administration than either of its predecessors, indicating an increased prioritization of attention to space policy at higher levels of policy-making.

To some degree, a turn toward multilateral cooperation in U.S. space policy was to be expected. China’s 2007 anti-satellite weapon (ASAT) test and the 2009 Iridium-Cosmos collision increased awareness of the challenge of space debris and the need for better global information sharing on space situational awareness (SSA).5  Also, new budget realities and **unpromising tech**nological developments have scaled back ambitions in some quarters for solving U.S. space security concerns with new independent capabilities. Finally, the Obama administration has pursued a more cooperative disposition across a wide range of global policy challenges, from Iranian nuclear ambitions to global climate change. But the improved clarity of vision in the 2010 Space Policy suggests that the emphasis on fostering global cooperation on space-related activities is more grounded in deliberate foresight than sailing the prevailing political winds.

The 2011 National Security Space Strategy, released February 4, is best interpreted against this background of the Obama administration’s turn toward both greater international space cooperation and greater attention to space policy in general. This first-of-its-kind strategic statement culminates a congressionally mandated space posture review.6 The initial section portraying the strategic environment to which U.S. security policy must be responsive highlights the growing problems of space debris, orbital congestion and coordination among a growing number of space actors — not state-based security threats per se.  The Security Space Strategy features the objective of a “stable space environment in which nations exercise shared responsibility.”7 Specific provisions intended to implement this strategy, relevant to the preceding observations, include:8

• The strategy presents a full section on “Partnering with Responsible Nations, International Organizations, and Commercial Firms.” This category is not wholly multilateral in the traditional sense, displaying a symbiosis of alliance-building and collective cooperation not always carefully distinguished; i.e., “The United States will lead in building coalitions of like-minded space-faring nations and, where appropriate, work with international institutions to do so.”

• The strategy intends to “encourage responsible behavior in space and lead by the power of example,” a significant observation given the tendency of U.S. policy-makers (as noted above) not to expect quid pro quo responses to cooperative gestures. Also, the strategy states the U.S. “will support development of data standards, best practices, **transparency** and confidence-building measures, and *norms of behavior for responsible space operations*.” [italics added] In the context of the section on “Preventing and Deterring Aggression,” the strategy similarly intends to “support diplomatic efforts to promote norms of responsible behavior in space” as well as “pursue international partnerships that encourage potential adversary restraint,” along with other measures.  This emphasis on norm-building and the role of example suggests a near-term endorsement of the development of “codes of conduct” for space activities (such as the recently revised European Union Code of Conduct, discussed below), whether or not such concord leads to more formal arms control arrangements in the longer-term.

• The Department of Defense is directed to “foster cooperative SSA relationships,” and to “expand provision of safety of flight services to U.S. Government agencies, other nations, and commercial firms.” Greater SSA information sharing has been a key suggestion for fostering international cooperation; the U.S. possesses globally superior SSA capabilities, but restricts the sharing of this information on the basis of national security concerns.9 Hence, this nominal commitment is significant in its own right.

• The strategy commits to reforming export controls. “In particular, as new opportunities arise for international collaboration, a revised export control system will better enable the domestic firms competing for these contracts.” As noted above, the oppressive impact of current U.S. export controls not only impinges on U.S. commercial space actors but also epitomizes the high degree to which U.S. policy has subsumed commercial and civil interests to national security concerns. The strategy appears to acknowledge this connection and commit to remedy it.

• The most assertive passages of the statement are moderated with community-building intent. For example, the strategy’s section on “Preventing and Deterring Aggression” concludes that the U.S. “will retain the right and capabilities to respond in self-defense, should deterrence fail,” but immediately adds that the U.S. “will use force in a manner that is consistent with longstanding principles of international law, treaties to which the United States is a party, and the inherent right of self defense.”

• The concluding and most conflict-oriented section of the strategy opens by noting that “some actors may still believe counterspace actions could provide military advantage.” Counterspace capabilities, unarticulated in the document, include ASATs, ground-based directed energy weapons and satellite transmission jamming. Deputy Assistant Secretary of Defense for Space Policy Gregory Schulte explained at the strategy’s rollout that China is a principal concern in this regard, but so is the proliferation of these technologies: “If Ethiopia can jam a commercial satellite, you have to worry what others can do.”10  This section of the strategy does not, however, call for maintaining options to develop complementary space conflict capabilities.

Rather, the strategy asserts that the U.S. “must be prepared to ‘fight through’ a degraded environment,” and identifies “resilience” and “space protection” as the key criteria.

The preceding survey of elements of the 2011 National Security Space Strategy is deliberately selective, highlighting those elements expressing consistency with the 2010 National Space Policy’s bend toward fostering greater international collaboration. Perhaps as **striking** as the prevalence of such passages, however, **is the** **absence of** expressed **intention — even** couched **in hedging language — to** sustain or **expand** the kind of **independent** **space-based military capabilities** that were the centerpiece of the prior administration’s aims (if not its accomplishments). Again, to some extent this turn in tone is overdetermined by extenuating global circumstances. But one must still be struck by the degree to which developments such as the Chinese ASAT test have not ignited the kind of response one might have anticipated only a few short years after Donald Rumsfeld’s notorious warning of a “space Pearl Harbor.”11

The most immediate significance of the National Security Space Strategy is likely the signals its sends concerning U.S. policy toward the recently revised European Union Code of Conduct.12  The strategy did not explicitly endorse this EU initiative, but Mr. Schulte, at the February 4 presentation of the strategy, highlighted the initiative “as a potential way” to promote “transparency and confidence-building measures, which tend to be voluntary as opposed to legally binding.” A week earlier, Rose Gottemoeller, Assistant Secretary of State for Arms Control, Verification and Compliance, stated at the Conference on Disarmament that the administration was nearing a decision on whether the U.S. would sign on to the code, and what modifications might be required in order to do so.13 As U.S. interest in the Code of Conduct has increased, debates over its provisions and its relationship to the Outer Space Treaty have intensified.

These policy movements toward multilateral engagement and commitment to behavioral standards (even if non-binding) mark a sharp departure from the stiff resistance to curtailing U.S. “freedom of action” in the previous administration, and have accordingly generated resistance from congressional opponents on just those terms. Prior to the release of the National Security Space Strategy, a group of 37 Republican senators led by Arizona Senator Jon Kyl issued a letter to Secretary of State Hillary Rodham Clinton expressing concern over a potential multilateral commitment that might limit development and/or deployment of space-based missile defense interceptors and ASAT-defeating systems.14  Critics also decried the strategy’s emphasis on “the old fallacious assumption that the power of example will prevent adversaries from doing the United States harm,” and endorsed maintaining the goal of U.S. retention of a “dominant position in military and intelligence space capabilities.”15 In fact, the administration’s warming toward normative commitments in general — and the EU Code of Conduct in particular — are in part intended to forestall pressure for more formal and binding measures that would definitively cut off the “hedge” of unilateral U.S. weapons development options.16 The balance of U.S. debate may have shifted toward greater international cooperation, but the terms of the debate remain the same.

In sum, the National Security Space Strategy appears to mark not only a swing in U.S. policy toward greater global engagement but also, and more importantly, a step toward greater long-term coherence in thinking concerning the core goals of U.S. space activities. Even supporters of the general directions of the strategy noted its more-than-expected breadth of thought.17 But if this reading is sound, the strategy is still but one step on a long road, and ongoing debates over the role of U.S. space policy vis-à-vis broader national security interests will insure that road is bumpy. Suggesting such limitations, Mr. Schulte acknowledged that the classified version of the strategy is only four pages longer than the released version, indicating that more specific guidelines for military implementation of the strategy remain to be developed.18 Many devils may lurk in these details.

#### SSP facilitates weaponization

**Ramos 2k** – US Air Force Major, Thesis submitted for the AIR COMMAND AND STAFF COLL MAXWELL Air Force Base (Kim, “Solar Power Constellations: Implications for the United States Air Force,” April, <http://handle.dtic.mil/100.2/ADA394928>)

Force Application

United States Space Command developed four operational concepts to guide their vision. One of those operational concepts is global engagement. The *USSPACECOM Long Range Plan* defines global engagement as an “integrated focused surveillance and missile defense with a potential ability to apply force from space.”27 This application of force from space involves holding at risk earth targets with force from space.28 *New World Vistas* identifies several force application technologies. One of the technological issues associated with developing these space force application technologies is that they all require large amounts of power generation. A solar power satellite can supply the required power. Two technologies in particular would benefit from integration with a solar power satellite, directed energy weapons, such as lasers, and jamming devices.

The space-based lasers currently under study accomplish ground moving target indication, and air moving target indication, which would be part of missile defense.29 The main difficulty with the laser is designing a power plant, which can produce the required energy in space without the enormous solar arrays required. By using a solar power satellite to beam power to the laser, this eliminates the problem.

Another project, which would benefit from integration with a solar power satellite, is a device, which would beam RF power to a particular geographic location to blind or disable any unprotected ground communications, radar, optical, and infrared sensors.30 As with the laser and other directed energy applications, the limiting factor right now is **generating enough power in space** to energize the RF beam.

#### Unilateral deployment causes global backlash

**Glaser, 8** – inventor of SSP, aerospace engineer, vice president at Arthur D. Little, consulting on consulting projects in aerospace, solar energy, and materials science (Peter, Ad Astra, Interview, “An energy pioneer looks back”, Spring, <http://www.nss.org/adastra/AdAstra-SBSP-2008.pdf>) //DH

Glaser: Since it would be such a huge undertaking, I think it would be best accomplished at an international level, perhaps even managed by the United Nations. Each country could contribute their best effort, and then each country would reap the benefit of cheap and plentiful power from the sun. We could utilize the knowledge of all the nations that have been researching space- based solar power. If only one country has the satellites, the international community will worry that the technology will be misused. With every nation taking part in the planning, building, and operation of the system, there would be inherent transparency, oversight, and equality. There would be no secrets, and no country would be left in the dark.

On the other hand, if one nation decides to build the system, all hell may break loose. There would be distrust and a huge shift in the balance of power. Any nation with such a system would not only have an advantage in space, but they would have economic and military advantages on the ground as well. And there are many countries taking the idea of solar power from space much more seriously that we are in the United States. I would prefer to see a network of power satellites built by an international effort.

#### The impact is extinction

**Chari, 7** – Research Professor, Institute of Peace and Conflict Studies (“CHINA’S ASAT TEST Seeking the Strategic High Ground,” <http://www.ipcs.org/pdf_file/issue/1512612560IPCS-Special-Report-34.pdf>)

Possession of satellites with both defensive and offensive capabilities could, in theory, enable the nation possessing them to acquire virtual invulnerability to counterattack by the adversary’s missiles. In other words, the ability to intercept a ballistic missile attack, using information acquired by reconnaissance and communication satellites, could ensure an invulnerable first strike capability, untrammeled by the angst that the adversary would be able to launch a second strike and inflict unacceptable damage on the aggressor. Disrupting a putative detection and interception capability by ASAT means could, arguably, restore the balance, and ensure that second-strike capabilities remain robust; thereby, the nuclear deterrent relationship between adversaries would also remain stable.¶Unfortunately, this scenario is unlikely to obtain **in the real world.** A nation which discovers that its space-based assets have become vulnerable to attack would, most likely, either enlarge their numbers or equip them with self-protecting equipment possessing both defensive and offensive capabilities. It could also place its other nuclear forces on hair-trigger alert to attack the aggressor if it finds its space-based assets being targeted or attacked. This not implausible scenario might very well spell the initiation of a **nuclear Armageddon**.¶ Proceeding further, the national judgment of when, how and in what manner it would determine that its space-based assets have been attacked to launch its counter-attack from space or earth would be made by computers. Given the reality that computers do malfunction and the well-recognized maxims of Murphy’s Law, the transfer of decision-making on such vital national security issues to computers and machines is hardly reassuring. Stated differently, the chances of accident, misunderstanding and misperception will increase should decisionmaking be largely premised on mechanical instruments, which is inevitable when satellites are equipped and empowered to launch attacks and defend themselves in space. This dispensation is, intrinsically, conducive to great instability and tensions in bilateral relations.

### CP

#### The United States Federal Government should verifiably ground the X-37B and should implement a terrestrial based bistatic radar system transmitter and unpersoned aerial vehicles.

#### The counterplan bolsters the perceived trend toward space cooperation—makes continued arms control possible

Brown 10 – Satellite Journalist

Peter, “China has good reason to stay quiet,” 5-2, Asia Times, <http://www.atimes.com/atimes/China/LE04Ad02.html>)

China could easily put the US in the hot seat for failing to disclose details about the true nature of the X-37B test-flight. Having such an opportunity to turn the tables on the US after listening to so many US complaints in the past about China's lack of transparency no doubt bemuses Beijing. However, China has good reasons for tempering its criticism. Several days after the launches of the X-37B and Falcon HTV-2, for example, there was a report in the Chinese press attributed to Wang Chun, a senior engineer at the Chengdu Aircraft Design Institute who serves as general director of Near Space Vehicle Research Laboratory, that China had successfully launched its own hypersonic "prototype space fighter". Whether or not this involved China's "Shenlong" space plane project is unclear. Regardless, all coverage of this story which commenced in China Aviation News suddenly ceased in the Chinese press, and a well-publicized retraction took place shortly thereafter. [2] There are other reasons for China to exercise some degree of restraint. "The Chinese are pleased that, unlike the [George W] Bush administration, US President Barack Obama values arms control as a legitimate vehicle for realizing US and international security objectives, and that he is working to minimize friction and facilitate dialogue and cooperation between the US and China on these issues," said Gregory Kulacki, senior analyst and China Project Manager for the Global Security Program at the Massachusetts-based Union of Concerned Scientists. In space in particular, Obama seems open to a fresh start, and China wants that openness to continue. "The Obama administration has expressed a willingness to discuss space arms control in Geneva and China welcomes the change," said Kulacki. "This winter, in Track-Two talks in Geneva, the Chinese delegation hinted they would be open to discussing a ban on terrestrial anti-satellite (ASAT) weapons as part of a future Prevention of an Arms Race in Outer Space (PAROS) agreement." One of the criticisms of the current space arms control treaty proposed by Russia and China has been that it does not prohibit ASAT weapons, "so this indicates the draft is only meant as a starting point for talks, not a limit on what China and Russia would be willing to include in a potential treaty," Kulacki added. At the same time, Chinese military planners, particularly those responsible for scientific and technical development, have been anticipating developments like the X-37B and the Falcon for two decades. "They are not surprised by anything the US is doing. They have been concerned about the weaponization of space for more than two decades, and would like to see international negotiations to address what they perceive as a potential arms race in space," said Kulacki. "They would like to constrain US development of military space technologies, because, in part, they don't want to have to make large investments in keeping up, but also because they worry these technologies are destabilizing and could precipitate a unwanted war."

#### This solves

Oswald et al 2010 (Michael, <http://www.researchgate.net/publication/225004958_Space-based_Bistatic_Radar_for_UAV_Autonomous_Navigationand_Surveillance_System>)

Bistatic radars offer several advantages when compared to their monostatic counterparts. In addition to increased performance, sensitivity, coverage and revisit times, all of them parameters which are mainly dependent on their spatial configuration, bistatic radars offer the objective advantage of being more robust to jamming, since the receiver operates as a mere passive system. The proposed system consists of a spaceborne-based radar transmitter illuminating an area of interest and one or several radar receivers mounted on a UAV to perform a two-goal mission: a) help autonomous navigation of the UAV by performing the sense & avoid function, and b) perform surveillance of the overflown area using high-resolution remote sensing techniques. Although the requirements for these significantly different tasks might seem distant, having a spaceborne transmitter ensures that the coverage needed for both purposes is achievable. Assuming the technical feasibility of the complete system, it would provide a cheap and robust manner for enabling global UAV flight, while enabling continuous all-weather imaging capabilities of the UAV-overflown areas with fair resolution values.

### Solvency

#### SPS isn’t feasible or cheap – even worse than normal solar

**Koppelaar 12** (Rembrandt Koppelaar, co-founder and former President of ASPO Netherlands (Association for the Study of Peak Oil and Gas Netherlands) from 2005 to 2010. He holds a BSc in economics from Wageningen University of Life Sciences. Currently he is towards a Research Master degree in environmental economics,“Space-Based Solar Power,” 3/21/12) <http://www.theoildrum.com/node/9046#more>

For example, transmission of power from space-based solar installations would likely be by microwave link to the ground. If we’re talking about sending power 36,000 km from geosynchronous orbit, I presume we would not balk about transporting it a few thousand kilometers across the surface of the Earth. This allows us to put solar collectors in hotspots, like the Desert Southwest of the U.S. or Northern Africa to supply Europe. A flat panel tilted south at latitude in the Mojave Desert of California would gather an annual average of 6.6 full-sun-equivalent hours per day across the year, varying from 5.2 to 7.4 across the months of the year, according to the NREL redbook study. Next, surely we would allow our fancy ground-based panels to articulate and track the sun through the sky. One-axis tracking about a north-south axis tilted to the site latitude improves our Mojave site to an annual average of 9.1 hours per day, ranging from 6.3 to 11.2 throughout the year. A step up in complexity, two-axis tracking moves the yearly average to 9.4 hours per day, ranging from 6.8 to 12.0 hours. We only gain a few percent in going from one to two axes, because the one-axis tracker is always pointing within 23.5° of the direction to the sun, and the cosine projection of this angle is never less than 92%. In other words, it is useful to know that a simple one-axis tracker does almost as well as a more sophisticated two-axis tracker. Nonetheless, we will use the full-up two-axis performance against which to benchmark the space gain. On a yearly basis, then, getting continuous 24-hour solar illumination beats the California desert by a factor of 2.6 averaged over the year, ranging from 2.0 in the summer to 3.5 in the winter. One of my points will be that launching into space is a heck of a lot of work and expense to gain a factor of three in exposure. It seems a good bet that it’s cheaper to build three times as many panels and stick them on the ground. It’s not rocket science. For technical accuracy, we would also want to correct for the atmosphere, which takes a 21% hit for the energy available to a silicon photovoltaic (PV) on the ground vs. space, using the 1.5 airmass standard. Even though the 1347 W/m² solar constant in space is 35% larger than that on the ground, much of the atmospheric absorption is at infrared wavelengths, where silicon PV is ineffective. But taking the 21% hit into account, we’ll just put the space gain at a factor of three and call it close enough. What follows can apply to straight-up PV panels as collectors, or to concentrated reflectors so that less photovoltaic material is used. Once we are comparing to two-axis tracking on the ground, concentration is on the table. Orbital Options Are we indeed dealing with 24 hours of exposure in space? A common run-of-the mill low-earth-orbit (LEO) satellite orbits at a height of about 500 km. At this height, the earth-hugging satellite spends almost half its time blocked from the Sun by the Earth. The actual number for that altitude is 38% of the time, or 15 hours per day of sun exposure. It is possible to arrange a nearly polar “sun synchronous” orbit that rides the sunrise/sunset line on Earth so that the satellite is always bathed in sunlight, with no eclipsing by Earth. But any LEO satellite will sweep past the ground at over 7 km/s, appearing for only 2 minutes above a 30° elevation even for a direct overhead pass (and only about 6 minutes from horizon to horizon). What’s worse, this particular satellite in a sun-synchronous orbit will not frequently generate overhead passes at the same point on the Earth, which rotates underneath the orbit. In short, solar installations in LEO could at best provide intermittent power to any given site—which is the main rationale for leaving the ground in the first place. Possibly an armada of smaller installations could zip by, each squirting out energy as it passes by. But besides being a colossal headache to coordinate, the sun-synchronous full-sun satellites would necessarily only pass over sites experiencing sunrise or sunset. You would get all your energy in two doses per day, which is not a very smooth packaging, and seems to defeat a primary advantage of space-based solar power in avoiding the need for storage. Any serious talk of solar power in space is based on geosynchronous orbits. The period of a satellite around the Earth can be computed from Kepler’s Law relating the square of the period, T, to the cube of the semi-major axis, a: T² = 4π²a³/GM, where GM ≈ 3.98×1014 m³/s² is Newton’s gravitational constant times the mass of the Earth. For a 500 km-high orbit (a ≈ 6878 km), we get a 94 minute period. The period becomes 86400 seconds (24 hours) at a ≈ 42.2 thousand kilometers, or about 6.6 Earth radii. For a standard-sized Earth globe, this is about a meter from the center of the globe, if you want to visualize the geometry. A geosynchronous satellite indeed orbits the Earth, but the Earth rotates underneath it at like rate, so that a given location on Earth always has a sight-line to the satellite, which seems to hover in the sky near the celestial equator. It is for this reason that satellite receivers are often seen tilted to the south (in the northern hemisphere) to point at the perched platform. Being so far from the Earth, the satellite rarely enters eclipse. When it does, the duration will be something like 70 minutes. But this only happens once per day during periods when the Sun is near the equatorial plane, within about ±22 days of the equinox, twice per year. In sum, we can expect shading about 0.7% of the time. Not too bad. Power Transmission Now here’s the tricky part. Getting the power back to the ground is non-trivial. We are accustomed to using copper wire for power transmission. For the space-Earth interconnect, we must resort to electromagnetic means. Most discussions of electromagnetic power transmission centers on lasers or microwaves. I’ll immediately dismiss lasers as impractical for this purpose, because clouds block transmission, because converting the power into electricity is not as direct/efficient as it can be for microwaves, and because generation of laser power tends to be inefficient (my laser pointer is about 2%, for instance, though one can do far better). So let’s go microwave! For reasons that will become clear later, we want the highest frequency (shortest wavelength) we can get without losing too much in the atmosphere. Below is a plot generated from an interactive tool associated with the Caltech Submillimeter Observatory (where I had my first Mauna Kea observing experience). This plot corresponds to a dry sky with only 2.0 mm of precipitable water vapor. Even so, water takes its toll, absorbing/scattering the high-frequency radiation so that the fraction transmitted through the atmosphere is tiny. Only at frequencies of 100 GHz and below does the atmosphere become nearly transparent. But if we have 25 mm of precipitable water (and thick clouds have far more than this), we get the following picture, which is already down to 75% transmission at 100 GHz. Our system is not entirely immune to clouds and weather. But we will go with 100 GHz and see what this gets us. Note that even though microwave ovens use a much lower frequency of 2.45 GHz (λ = 122 mm), the same dielectric heating mechanism operates at 100 GHz (peaking around 10 GHz). In order to evade both water absorption and dielectric heating, we would have to drop the frequency to the radio regime. At 100 GHz, the wavelength is about λ ≈ 3 mm. In order to transmit a microwave beam to the ground, one must contend with the diffractive nature of electromagnetic radiation. If we formed a perfectly collimated (parallel) beam of microwave energy from a dish in space with diameter Ds—where the ‘s’ subscript represents the space segment—we might naively anticipate the perfectly-formed beam to arrive at Earth still fitting in a tidy diameter Ds. But no. Diffraction imposes an angular spread of about λ/Ds radians, so that the beam spreads to a diameter at the ground, Dg ≈ rλ/Ds, where r is the distance between transmitter and receiver (about 36,000 km in our case). We can rearrange this to say that the product of the diameters of the transmitter and receiver dishes must approximately equal the product of the propagation distance and the wavelength: DsDg ≈ rλ So? Well, let’s first say that Ds and Dg are the same. In this case, we would require the diameter of each dish to be 330 m. These are gigantic, especially in space. Note also that really we need Dg = Ds + rλ/Ds to account for the original extent of the beam before diffraction spreads it further. So really, the one on Earth would be 660 m across. Launching a microwave dish this large should strike anyone as prohibitively difficult, so let’s scale back to a more imaginable Ds = 30 m (still quite impressive), in which case our ground-based receiver must be 3.6 km in diameter! Now you can see why I wanted to keep the frequency high, rather than dipping into the radio, where dishes would need only get bigger in proportion to the wavelength. Converting Back to Electrical Power At microwave frequencies, it is straightforward to directly rectify the oscillating electric field into direct current at something like 85% efficiency. The generation of beamed microwave energy in space, the capture of the energy at the ground, then conversion to electrical current all take their toll, so that the end-to-end process may be expected to have something in the neighborhood of 50% efficiency. Beam Safety and Consequences I don’t worry too much about keeping the beam from veering off the collection region. There are clever, fail-safe schemes for ensuring proper alignment/pointing. According to the Wikipedia page on the topic, the recommended transmission strength would be 230 W/m² in the center of the beam. This is about a quarter the strength of full sunlight, and is thought to be a safe level through which aircraft and birds can fly. At this level, our 3.6 km diameter collecting area would generate about 40 GWh of energy in a day, at an assumed reception/conversion efficiency of 70%. By comparison, a flat array of 15%-efficient PV panels occupying the same area in the Mojave Desert would generate about a fourth as much energy averaged over the year. So these beaming hotspots are not terribly more concentrated than what the sunlight provides already. Again, I find myself scratching my head as to why we should go to so much trouble. Launch Costs This brings us to the tremendous cost of launching stuff into space. Today’s cost for putting stuff into geosynchronous orbit is about $20,000 per kilogram of launched material. We have a history of hope and optimism that launch costs will plummet in the future. So far, that has not really happened, and rising energy prices are not going to help drive costs ever lower. Meanwhile, the U.S. space program appears to be scaling back. In 1999, NASA initiated a $22 million study investigating the feasibility of space-based solar power. Among their conclusions was that launch costs would need to come down to $100–200 per kg to make space-based solar power economically competitive. It is hard to imagine accomplishing a factor-of-100 reduction in launch costs. Let’s do our own quick analysis. A standard rooftop panel delivers about 10 W per kilogram of mass (slightly better than this, but I will stick to round numbers). Let’s say a light-weighted version for space achieves an impressive factor-of-100 improvement: same power for 1% the mass. This gives 1 kW/kg. I might be grossly over-optimistic in this estimate, but we’ll see where it takes us. Ignoring other infrastructure overhead (wiring, propulsion systems, structural support, microwave transmission antenna, communications, etc.), we end up with a launch cost of $40 per delivered Watt, accounting for 50% delivery efficiency—and this is just the launch cost. I’ll bet the space-qualified ultralight PV panels are not as cheap as the knock-about panels we put on our roofs for $2/W. So maybe the cost of the space hardware, launch of all systems, and build-out of expansive ground systems will cost upwards of $60/W—becoming $400/W if we don’t manage the 100× weight reduction per Watt, settling for 10× instead. Granted, the constant illumination provides a factor of three in favor of space, so we can give it a 3× discount for its full-time contribution. But still, compared to typical ground installation costs at $5/W, we find that the solar approach is at least four times more expensive. You can even throw in batteries in the ground system without exceeding the space cost, and all the reasons for going to space have melted away. Energy Return on Energy Invested My initial reaction to the notion of flinging solar panels in space was that the energy needed to launch panels to geosynchronous orbit might totally undermine the energy delivered by such a system. Let’s take a quick look with approximate numbers. First, today’s silicon solar panels return their investment of energy after 3–4 years of deployment. Stick them in the sun for 30–40 years, and you have an EROEI of 10:1. Specially light-weighted space panels will likely require more energy to make per kilowatt, but will spend a much greater fraction of their time in space soaking up energy. Let’s just guess that the payback would be 5 years if the space panel were deployed on the ground. But in space, the panel works five times longer per day than the panels for which the 3–4 year payback is calculated. So let’s call it an even one year for manufacture payback in space. Panels in space will be subjected to a much harsher cosmic ray (and damaging debris) environment than those on the ground, so we should reduce the lifetime to, say, 20 years. Still, that’s a 20:1 EROEI for the manufacturing piece alone. But then there’s the launch. A study of gross weight of rockets compared to payload delivered to geosynchronous orbit reveals a roughly 100:1 ratio. This intuitively makes sense to me given the logarithmic rocket equation: much of the fuel is spent lifting the fuel that must be spent to lift more fuel, etc. (see the appendix of the stranded resources post for my explanation of this). There is a nice rule of thumb—highly approximate—that the embodied energy in products is about the same as that of the equivalent mass of gasoline, at about 40 MJ/kg. Aluminum production requires more, at 220 MJ/kg, but many materials are surprisingly close to this value (and fuel will be right on the mark). A rocket will use a lot of aluminum, but much more fuel. So we might go with a round number like 50 MJ per kg. If I take my ultra-lightweight panel producing 1 kW/kg, I must launch 100 kg of rocket, at a cost of 5 GJ. A 1 kW panel will deliver 0.5 kW to the end-user, after transmission/conversion losses are considered. The 5 GJ launch price tag is then paid off in 107 seconds, or about one third of a year. Add the embodied energy of the other components in space and on the ground, and I could easily believe we get to a year payback—now bringing the total (manufacture plus launch) to two years and an EROEI around 10:1. If my 100× light-weighting proves to be unrealistic, and we can only realize a factor of ten improvement over our rooftop panels, the solar panel launch cost climbs to three years, so that adding other components results in perhaps a 4:1 EROEI. In the end, the EROEI is not as prohibitive as I imagined: it’s not a net energy drain as I might have feared. But it’s not obviously better than conventional solar either. In Summary I sense that people have a tendency to think space is easy. We have lots of satellites, we’ve gone to the Moon (remember that?!), we used to have a space shuttle program, and we have seen many movies and television shows set in space. But space is a very challenging environment, and it is extremely costly and difficult to deliver things there. If you go to the Fed-Ex site to get delivery costs, you immediately get hung up on not knowing the postal-code for space. Once in space, failures cannot be serviced. The usual mitigation strategy is redundancy, adding weight and cost. A space-based solar power system might sound very cool and futuristic, and it may seem at first blush an obvious answer to intermittency, but this comes at a big cost. Among the possibly unanticipated challenges: The gain over the a good location on the ground is only a factor of 3 (2.4× in summer, 4.2× in winter at 35° latitude). It’s almost as hard to get energy back to the ground as it is to get the equipment into space in the first place. The microwave link faces problems with transmission through the atmosphere, and also flirts with roasting ducks on the wing. Diffraction of the downlink beam, together with energy density limits, means that very large areas of the ground still need to be dedicated to energy collection. Traditional solar photovoltaics in good locations can accomplish much the same for much reduced cost, and with only a few times more land than the microwave link approach would demand. The installations will be serviceable and will last longer. Batteries seem an easier way to cover storage shortcomings than launching stuff to space. I did not even address solar thermal schemes in this post, which competes well with photovoltaics and can very naturally build in storage capability. I am left puzzled as to why we would want to take a harder, more expensive road to solar power. I think it is just not intuitive to most how difficult and expensive space is. And perhaps they think it’s very futuristic and cool to push our power generation out to space: it fits the preferred narrative about where we’re going. I don’t know—I’m just guessing. Astronomers frequently face this issue: should we build a telescope/observatory on the ground, or launch something into space? The prevailing wisdom is that if the science can be accomplished on the ground, then by golly you’d best do it that way. You’ll have the result sooner, at less expense, and with a greater chance of success. The lion’s share of astronomical advance is carried out from the ground. Space is reserved for those places where there is no other way. The atmosphere blocks many interesting wavelengths, creates turbulence that makes high-resolution imaging difficult, and produces variations in transmission that make it impossible to measure fluxes to high precision. The rotating Earth gets in the way of continuous observation of a single target for long periods. Some of the more exciting (an well-publicized) discoveries come from space missions, because these avenues are not generally available to us, increasing discovery potential. Space-based solar power contains little intrinsic advantage that we can get “only from space.” It looks like a wash at best, and the astronomers would say “don’t bother.”

#### SSP fails – laundry list

- tech isn’t developed, high costs, debris, lack of information, lack of coordination

David **Worthington**, contributing editor, 11/14/**11**, “Space, solar power’s next frontier?”, http://www.smartplanet.com/blog/intelligent-energy/space-solar-powers-next-frontier/10425, umn-rks

Some of the world’s foremost astronautics scientists believe that the future of solar power lies in space, but it would require a long-term commitment and international cooperation. The International Academy of Astronautics (IAA) has spent the past several years studying the feasibility of collecting solar energy in space and “beaming” it to Earth for collection. It completed its report in August, and SpaceWorks Enterprises sponsored its distribution. IAA has been dedicated to advocating space technology and exploration for non-military purposes since 1960. Dr. Peter Glaser of Arthur D. Little invented the solar powered satellite that same decade. NASA began to examine proposals for space based solar power in the late 1990’s. The primary benefit of placing a solar farm in orbit is that it would constantly harness the sun’s rays directly while not producing any terrestrial carbon pollution. It could also generate enough power to meet that world’s energy demands, the report says. Private companies have also latched onto the idea of space based solar power. Solaren Corp. struck a deal with Pacific Gas & Electric to begin supplying PG&E with celestial solar energy in 2016. Under IAA’s proposal, satellites would be positioned in geosynchronous orbit over the equator and span several miles. Power would be converted into microwaves or laser beams, which would then be directed down to Earth. Here’s how the report suggested that might work: Challenges include the damaging potential of space junk, as well as high development costs and requirement for new technologies to place satellites into orbit, according to Reuters, which received a copy of the study ahead of its release. The good news is that **such technologies exist**, and are being incubated in laboratories, the study determined. However, migrating those ideas from the lab into production would require substantial government seed money and a vast international development program. This R&D would lead to flight experiments and demonstrations in space to resolve the remaining economic and technical issues, the report concluded. IAA suggested that solar power in space could only be accomplished by coordinating the efforts of national space agencies and private groups such as companies, non-governmental organizations, and universities. The IAA also concluded that while the idea of space power may be viable, it needs much more information to make any recommendations. That includes market studies and systems analysis “in the context of 21st century markets.” I’m skeptical that a project of this magnitude could be accomplished. World leaders can’t even agree to take action on climate change, but I will not dismiss the potential of mankind to accomplish what seems impossible – provided the stakes are high enough.

#### Indian launch services are out-competing the US – bolsters Indian leadership

**Swati, 8** (Deb, Commodity Online” Nuke deal or not, India is already a super power” July 17, 2008, http://www.commodityonline.com/news/topstory/Nuke-deal-or-not-India-is-already-a-super-power-10445-2.html

India has launched 10 remote sensing satellites since 1998, has several broadcast satellites in space to control 170 transponders. Notably, it has been doing good business since then with 'powerful economic and strategic powers' and also launched lightweight satellites for Belgium, Germany, Korea, Japan and France.

ISRO chairman's refreshed optimism was virtually endorsed by none other than former President and an eminent scientist Dr A P J Abdul Kalam who hailing ISRO's scientists for successfully launching the PSLV-C9 in orbit said as against his expectations India can now become superpower by circa 2012.

''Though I have envisioned India to become a superpower by 2020, the attitude and the confidence of the youth, to conquer everything in the right spirit, would make the country a global leader and super power within five years,'' Kalam, who headed country's nuclear programme Pokhran II, has been quoted in the media within hours the tests were successfully conducted.

Indian space scientists are now eyeing greater visions. They are keen to launch foreign satellites from its own space station under suitable commercial agreements in order to compete with the United States, Russia, China and the European Space Agency.

"If our plan works out, ISRO is targeting revenue worth $70 million a year from launches for a galaxy of countries," says a senior official. Nair and other ISRO top brass have now made it clear that the country would plan to launch at least six satellites a year before a manned mission to space by 2015.

In effect, not many countries have access to the space all by themselves as India has achieved. Moreover, experts of global repute have confirmed that **its launching pad is commercially more viable than in established western countries and this can now give the cutting edge in claiming a bigger size of the cake in the global space business.**

India is now determined to make it big in space commerce. "We would like to maintain our leadership position," emphasizes Nair.

#### SSP would allow the U.S. to recapture the launch market

**Nansen 2000** - President Solar Space Industries, (Ralph, Statement to the United States Congress Subcommittee on Space Science “The Technical Feasibility of Space Solar Power” Before the Subcommittee on Space and Aeronautics, United States House of Representatives Committee on Science September 7, 2000, <http://www.spaceref.com/news/viewpr.html?pid=2571>) // CCH

Solar power satellite development would reduce and eventually eliminate United States dependence on foreign oil imports. They would help reduce the international trade imbalance. Electric energy from solar power satellites can be delivered to any nation on the earth. The United States could become a major energy exporter. The market for electric energy will be enormous. Most important of all is the fact that whatever nation develops and controls the next major energy source will dominate the economy of the world.

In addition there are many potential spin-offs. These include:

•Generation of space tourism. The need to develop low cost reusable space transports to deploy solar power satellites will open space to the vast economic potential of space tourism.

•Utilize solar power to manufacture rocket fuel on orbit from water for manned planetary missions.

•Provide large quantities of electric power on orbit for military applications.

•Provide large quantities of electric power to thrust vehicles into inter-planetary space.

•Open large-scale commercial access to space. The potential of space industrial parks could become a reality.

•Make the United States the preferred launch provider for the world.

#### Indian launch services are vital to Indian soft power and to the global economy

**Lele, 7**- Research Fellow at the Institute for Defence Studies and Analyses, New Delhi.

(Ajey, India Strategic, “Space Program Addin to India’s Brand Image” July 2007, <http://www.indiastrategic.in/topstories23.htm>)

International prestige in science and technology is critical. This is Soft Power.

It is the capacity to get others to do what we want without coercing them because they admire our achievements and want to emulate us.

India's Space Program needs to be viewed as the most thus. It is an important factor that has contributed immensely towards giving India its Soft Power status. However, this success in the space arena is a long tail of domestic and international struggle. Today, when the aerospace command is going to be a reality in India's defense architecture, it is important to trace the journey of India's space program.

The Indian Space Programme has a long history.

Subsequent to the launch of first artificial satellite Sputnik 1 in 1957, by the erstwhile Soviet Union, the technological vision of the then Prime Minister Jawahar Lal Nehru gave birth to this programme which now has accomplished many laurels for its professionalism. Scientists like Dr Vikram Sarabhai and MGK Menon were instrumental in making Nehru's dream turn into a reality.

Initially, space research was started as a part of India's atomic energy programme. This programme started in the year 1962 as the Indian Committee for Space Research (INCOSPAR) under the leadership of Vikram Sarabhai.

The most notable aspect of India's space programme is that it is not born out of any military programme, like ballistic missiles, but out of a dream of actually being able to launch satellites.

Even though the first team of Indian space scientists received their training in the United States and India did take help form the US and France to launch first few of their sounding rockets, in general though the Indian space vision revolved around the doctrine of building indigenous capability

The first significant space milestone to be developed by INCOSPAR was the Rohini Sounding Rocket (RSR) programme. It was associated with the firing of indigenously developed and fabricated sounding rockets. The first single-stage Rohini (RH-75) rocket weighing 32 Kg with an additional 7 Kg payload was successfully fired to an altitude of around 10 km. in 1967.

A two-stage Rohini rocket followed this with 100 kg payload to over 320 km altitude. These launches were conducted from Thumba, located in India's southern state of Kerala.

Understanding the need for a separate and independent agency to look at the country's growing space ambitions, the Indian Space Research Organisation (ISRO) was born in 1969.

Then, a separate Department of Space was created in 1972.

With a long-term vision for launching large rockets and subsequently satellites into various orbits, Sriharikota, a site close to Chennai (Madras) was chosen in 1969 as a launch station.

Since then, this site is fully operational and now even has a facility of multiple launch pads.

In the early 1970s, apart from building expertise and infrastructure for satellite launch vehicle (SLV), ISRO also started developing satellite technology. India launched its first satellite named Aryabhata in 1975 from a Soviet booster.

After that, overcoming one launch failure in 1979, ISRO fired its first indigenous satellite in 1980, calling it Rohini 1.

Over the years now, the Indian space programme has maturated. India has its own launch vehicles capable of sending satellites into polar orbits.

The Polar Satellite Launch Vehicle (PSLV) is reputed as India's most time tested workhorse today.

There were some failures during the late 1980s in mastering the Augmented Satellite Launch Vehicle (ASLV) technology. But ISRO gained valuable experience about strapon boosters and new guidance systems which has ultimately helped them towards the full production of PSLVs.

The success story of PSLV began in 1994, and in January 10, 2007 for the first time, India succeeded in putting four satellites together into orbit with this launch vehicle.

The same vehicle was also used to put Kalapna 1 weather satellite into the geostationary transfer orbit (GTO) and now ISRO proposes to use the same workhorse for the proposed Chandrayan 1 mission in 2008.

For launching heavy satellite (2000kg variety), ISRO has developed Geosynchronous Satellite Launch Vehicle (GSLV).

Its developmental flights, which took place during 2001 and 2003, have been successful. Also, in 2004, it successfully put EDUSAT into orbit.

There was a GSLV failure though on 10 July 2006, which indicates that India is not yet fully independent is some satellite launches, particularly of the INSAT variety (Geo-stationary orbit, 36000 km above the earth) are concerned.

Nonetheless, ISRO has established two major space systems, INSAT for communication, television broadcasting and meteorological services, and Indian Remote Sensing Satellites (IRS) for resources monitoring and management.

The progress in both these programmes has been noteworthy.

During last decade particularly, satellite technology has been put in use in many areas including weather forecasting, education, disaster management and civil aviation etc.

Today, India is emerging as a major player in the arena of space technologies and has got many ambitious plans for the future.

India suffered from a basic handicap of technology transfer from other countries post- 1974 because of its nuclear ambitions. The again, during the early 1990s, India was stopped from procuring cryogenic engines from the Russia due to US pressure.

However, with US President George Bush signing the Indo-US nuclear deal now, it appears that India's technological apartheid is likely to be over and the space philosophy of the country will get a major boost with many international players being allowed to collaborate. Major international companies like Raytheon, Boeing, GE and Ariane are already offering space - and nuclear - technologies to India.

ISRO's recent Cartosat satellites launche has brought India at par with the second best in the business as far as imagery resolution is concerned.

Cartosat I, successfully launched in May 2005, is playing a crucial role in several applications and has boosted India's remote sensing services with high-resolution images. It has a resolution of 2.5 meters.

The successful launching of Cartosat II on 10 January 2007 with one meter resolution has brought India at par with the Ikonos of the US. With this satellite, the cost of obtaining imagery has come down by at least five times, and also, better resolution helps in better planning.

The imagery it provides helps in digital elevation maps for urban and rural development, land and water resources management, disaster and environmental impact assessment.

Notably, the best resolution in the world is provided by the US Quickbird satellite system that offers an unbelievably low 60-cm resolution. That has to be target of Indian scientists some day.

India's space aspects essentially do not have any military rationale.

However, space technology is inherently a dual-use technology, and any space assets would naturally perform many military tasks.

Communication, surveillance, reconnaissance etc. are the routine functions for any armed force and IRS and INSAT series satellites are capable of performing such functions. The Cartosat imagery is particularly expected to help the armed forces in a big way. Other offshoots, like the knowledge gained in rocket science for missile developments etc., are obvious.

The Indian space programme achieved a major global dimension when, at the end of 2006, the Indian scientific community made a unanimous suggestion that the time was appropriate now for India to undertake a manned space mission as well as an unmanned moon mission.

It emerges that after many years of experimentations, the scientific community has become more confident about the potential of carrying out such projects successfully. Also, this is an indication of India's confidence in itself and in its economy. After all it is an investment of Rs 10,000 crores ($ 2.5 billion) over a period of eight years for such projects.

The most remarkable aspect of India's moon-dream is that it marks a fundamental policy change in respect of its space programme.

Dr Vikram Sarabhai, who envisioned this programme four decades ago, wanted to harness the space for India's economic and social development. He had said that India did not have the fantasy of competing with the economically advanced nations in the exploration of moon or the planets or manned spaceflights.

But now India believes that pushing forward human presence in space has become important for planetary exploration. It is part of the Vision 2025 for ISRO.

Also, there could be one more important but less talked about factor to all this thinking and that is the Chinese challenge.

In 2003, China became the third nation in the world after the US and erstwhile USSR to put a man in a space. After this, China has moved forward and even conducted an unthinkable anti-satellite test, adding unnecessarily to the debris in space and starting a new kind of military race in shooting down satellites.

It killed one of its own satellites on 11 Jan 2007 with a kinetic kill vehicle launched on board a ballistic missile. Although no one wants it, some countries are bound to build this capability.

India understands the strategic significance of conquering the outer space and the moon. Even countries like Pakistan and Malaysia are planning to send people into space. In fact Malaysia has not ruled out the possibility of one of its astronauts going to the moon by 2020, probably on some American spacecraft.

India's proposed manned mission to moon would make it a force to reckon with and count among the select few countries in the space club. It is expected that tomorrow somebody will put the flag on the moon and would claim its ownership - the threat which Antarctica had faced once.

Moon is important because in future it could become a convenient and cheap option for carrying out repairs of satellites which may go faulty in the outer space. Facilities could be built on the surface of the moon.

Also, another important factor is the presence of Helium-3. It is predicted that Helium-3 could become a great source for energy generation and will turn out to be a much better option than nuclear energy. The gas is available in abundance only over the moon and that is why the race for conquering it.

During last few years, ISRO has emerged as a useful agency for the developing countries to launch their satellites.

It has so far provided countries like Argentina and Indonesia etc to launch their satellites. This activity is also helping India in revenue generation and it is expected that in the years to come, India may be able to manage 10% share of this fast growing market.

Recently, India's first commercial rocket was fired into space, carrying a 776-pound Italian satellite that collects data on the origins of universe. The success of this launch is likely to give a major boost to India's brand image in the launch sector.

Today, a major transition is taking place in respect of India globally.

India is being considered as a major driver of the global economy in the future.

Strategically, India is also bound to play a major role in the global geopolitics. The presence of a space infrastructure should play a major role towards establishing an Aerospace Command by the three services to ensure the country's security.

But overall, ISRO has already given India a Brand Image in space research and capabilities.

#### That’s key to global democracy promotion – solves war, terrorism, environmental collapse, and disease

**Diamond, 07** – senior fellow at the Hoover Institution, Stanford University (Larry, Times of India, "India, Take the Lead," 12-13-2007, <http://timesofindia.indiatimes.com/Opinion/Editorial/LEADER_ARTICLE_India_Take_The_Lead/articleshow/2617945.cm>) // JMP

Whether it wants to be so or not, whether it is ready for this role or not, India is becoming a global power. In the years to come, India will have to decide what kind of global power it wants to be. With its economic might, its military power, and its "soft power" all increasing steadily, India will find it increasingly difficult to continue its traditional foreign policy of non-alignment and non-intervention.

Americans are in an awkward position to appeal to another rising power to promote democracy, as our own engagement for demo-cracy abroad over time has contained more than a little neocolonialism, unilateralism and hypocrisy. However, in the last three decades, this has been partially supplanted by increasingly effective efforts (especially when multilateral, practical and soft-spoken) to assist democratic development around the world.

One must also acknowledge the serious problems with India's own democracy: tenacious poverty and inequality, troubling levels of political violence and criminality in some states, and a fragmented political party system that makes it difficult to take decisions. In the face of acute challenges, it is understandable for India to want to be able to focus on its own problems.

Yet the established democracies of the world share a strong common interest in trying to bring about a more democratic world, and India's help is sorely needed in this cause. The global balance of power, of economic energy, and of moral authority is tilting from North to South. And the global environment for democracy is less favourable than at any time since the fall of the Berlin Wall, as an oil-rich Russia turns its back on Europe and democracy, a booming authoritarian China casts a lengthening shadow over Asia and now Africa as well, and democracy gasps for life in such crucially important countries as Pakistan, Bangladesh, Thailand, the Philippines, Nigeria and Venezuela. There are still a lot more democracies in the world than there were in 1989, but the momentum is reversing, and many democracies are in danger.

There are several reasons why India should care. First, India's own democracy could be affected by what happens regionally and globally. Recall that emergency rule fell upon India at a low-point for democracy in Asia and the world. Democracies thrive in regions where they enjoy the reinforcing legitimacy and mutual security of other democracies.

Second, by engaging other democracies around the world, India will also draw solidarity and some lessons that could be useful for its own democratic reform. All democracies in the world today are imperfect, and we all need to learn from one another.

Third, a more democratic world will be a more secure world for us all. Democracies do not go to war against one another. And they do a much better job of advancing human well-being and protecting the environment. Moreover, terrorism emanates disproportionately from authoritarian soil.

We are threatened in common with a global crisis of climate change that dwarfs anything human civilisation has ever confronted. And the pathologies of badly governed states - terrorism, crime, corruption, environmental stress, infectious disease - spill across borders more quickly and vengefully than ever before.

India does not need a radical reorientation of its foreign policy in order to make a difference to democracy in the world. It has an exceptionally rich history of democratic practice and experience to share with other developing democracies. Some of the obvious realms of experience that India has to share include: the evolution and functioning of federalism, the management of ethnic and religious conflict, the constitutional court, state and local government, electoral administration, the independent mass media and civil society. A very useful first step would be to bring practitioners and scholars from emerging democracies to India for periods of time to study how democracy works and has developed here. New institutions could be established and existing Indian think tanks and organisations could be supported to host such visits.

Of course the United States does quite a bit of this. But how relevant is the highly expensive and decentralised American (or even European) model of democracy for Asia and Africa? We would all be better off sending more democrats to countries like India and South Africa. And conducting these exchanges would be an excellent and also ethical way for India to extend its soft power at a time when China is doing so for much more brazenly commercial and strategic ends.

If India were to establish an institution to coordinate and organise exchanges with democrats around the world, richer democracies in the world would want to join with it and help to fund it. And in the near term, we have a ready potential vehicle. The UN Democracy Fund has recently been established, with a substantial budget that includes sizable contributions from India and the United States. It is a natural candidate to provide early support for such a new initiative.

India should join the worldwide movement for democracy because doing so is in India's own national interest, not because the West asks it. But the democratic West has obligations to India that it must fulfil in the process. If we are asking India to play more of a leader-ship role on the world stage, than we must make room for that leadership. This should include India's permanent membership on the UN Security Council and its inclusion in global agenda-setting dialogues, such as the G8.

**Extinction.**

**Revel, 1993** (Jean-Francois, Former Prof. Philosophy and Commentator, “Democracy Against Itself: The Future of the Democratic Impulse”, p. 258-259)

Twentieth-century history is clear on two points: only capitalism engenders economic development; only democracy can correct the worst political abuses and errors. This is why humanity faces a stark choice: democratic capitalism or extinction. I would revise Michael Novak's term to read: democratic and liberal capitalism. For capitalism can be illiberal—protectionist and closely associated to the state. In this case, it is not as much of an obstacle to development and individual liberty as is socialism, but it hinders them and creates incentives for the corruption of political leaders. Liberal democratic capitalism is not the best system: it is the only one [that works]. The parrots who keep telling us about its imperfections are right, it is imperfect. But the only prohibitive vice for a system, is not for it to be without vices, but to be without qualities. And what we know about all the tested alternatives to liberal democratic capitalism is that they are without qualities. It deserves plenty of criticism, but these should not lead to the temptation of returning to collectivism or even milder forms of state control. Of course democratic capitalism has its share of sins; but as Robert Nozick put it, socialism does seem to be an excessively heavy punishment for them. And anyway it has been tried already.

### Heg

#### No U.S. lashout - history

Parent 11—Assistant Professor of Political Science at the University of Miami—AND—Paul K. MacDonald, Assistant Professor of Political Science at Williams College (Joseph M., Spring 2011, *International Security*, Vol. 35, No. 4, http://www.mitpressjournals.org/doi/pdf/10.1162/ISEC\_a\_00034, RBatra)

With regard to militarized disputes, declining great powers demonstrate more caution and restraint in the use of force: they were involved in an average of 1.7 fewer militarized disputes in the five years following ordinal change compared with other great powers over similar periods.67 Declining great powers also initiated fewer militarized disputes, and their disputes tended to escalate to lower levels of hostility than the baseline category (see figure 2).68 These findings suggest the need for a fundamental revision to the pessimist’s argument regarding the war proneness of declining powers.69 Far from being more likely to lash out aggressively, declining states refrain from initiating and escalating military disputes. Nor do declining great powers appear more vulnerable to external predation than other great powers. This may be because external predators have great difficulty assessing the vulnerability of potential victims, or because retrenchment allows vulnerable powers to effectively recover from decline and still deter potential challengers.

#### No impact to Failed states – overblown

**Logan** and Preble**, 8** — associate director of foreign policy studies at the Cato Institute, AND, director of foreign policy studies at the Cato Institute (Justin and Christopher Preble, Harvard International Review, Winter 2008, Volume 29, Issue 4, pg. 62)

Anti-sovereignty academics and pro-empire Beltway pundits frequently defend their arguments by making assertions along the lines that "weak and failed states pose an acute risk to US and global security," as Carlos Pascual, the US State Department's first Coordinator for reconstruction and Stabilization, and Stephen Krasner wrote in Foreign Affairs in 2005. This is a rather dubious claim. The Fund for Peace/Foreign Policy magazine Failed States Index, for example, includes on its top 10 "most failed" states list Zimbabwe, Chad, Ivory Coast, the Democratic republic of the Congo, Guinea, and the Central African republic. It is difficult to imagine what threats are emerging from these countries that merit significant attention from US security strategists. To be sure, Afghanistan in the late 1990s was both a failed state by any definition and a threat to the United States. It should serve as a pointed reminder that we cannot ignore failed states. Traditional realist definitions of power reliant on conventional military capability, size of economy, and population, must now be supplemented with a recognition that small bands of terrorists could emerge from a backward corner of the globe and strike at the heart of the United States as well. But even here the interventionists' logic is weak. Attacking the threat that resided in failed Afghanistan in the 1990s would have had basically no effect on the health of the Afghan state. Killing Osama bin Laden and his comrades would have more substantially reduced the threat that bloomed on 9/11 than sending in US or international development personnel would have done. Attacking a threat rarely involves paving roads or establishing new judicial standards. It is this categorical error that is at the heart of the trouble with obsessing over state failure. To the extent that a threat has ever emanated from a failed state-and Afghanistan is essentially the only example of this-addressing the failure is different from attacking the threat. At best, the attempt to correlate state failure with terrorism relies on a dubious interpretation of terrorism: that terrorism is, at its root, a result of poverty that can be eradicated by an aggressive development effort. As Alan B. Krueger and others have demonstrated, however, terrorism is a response to political grievances, not a consequence of poverty. Accordingly, using the threat of terrorism to justify nation building in failed states is inappropriate.

#### Heg is inevitable

Maher 11 – Richard Maher, Ph.D. in Political Science from Brown University, Winter 2011, “The Paradox of American Unipolarity: Why the United States May Be Better Off in a Post-Unipolar World,” Orbis, Vol. 55, No. 1, p. 53-68

The United States will continue to be the ‘‘default power’’ (to use Josef Joffe’s term**)** in the near future.20 No other country will be able to duplicate the overall reach and influence of the United States—in terms of economic, political, and military power—for at least several decades. It is not clear, moreover, how many peoplewouldwant to live in aworlddominated byChina, India,Russia, or even Europe. The United States retains a number of tremendous advantages compared to possible strategic competitors: its demographics; advanced technology; raw materials; research universities and laboratories; continued dominance in global mass culture, and labor market flexibility.

**Empirical Resiliency for Competitiveness**

**Engardio 08** – senior writer for Business Week, (Pete, Is US Innovation Headed Offshore?, 5/7, Business Week)

To those worried about America's ability to compete in the 21st century, the trend is alarming: Just as key manufacturing industries fled offshore in the 1970s and '80s, U.S. companies are now shifting more engineering and design work to low-cost nations such as China, India, and Russia. Surely, innovation itself must follow. **Apparently not**, according to a new study published by the National Academies, the Washington organization that advises the U.S. government on science and technology policy. The 371-page report titled Innovation in Global Industries argues that, in sectors from software and semiconductors to biotech and logistics, **America's lead in creating new products and services has remained remarkably resilient over the past decade**—even as more research and development by U.S. companies is done offshore. "This is a good sign," says Georgetown University Associate Strategy Professor Jeffrey T. Macher, who co-edited the study with David C. Mowery of the University of California at Berkeley. "It means most of the value added is going to U.S. firms, and they are able to reinvest those profits in innovation." The report, a collection of papers by leading academics assessing the impact of globalization on inventive activity in 10 industries, won't reassure all skeptics that the globalization of production and R&D is good for the U.S. One drawback is that most of the conclusions are based on old data: In some cases the most recent numbers are from 2002. Exporting the Benefits? And while the authors of the report make compelling cases that U.S. companies are doing just fine, thank you, none of the writers addresses today's burning question: Is American tech supremacy thanks to heavy investments in R&D also benefiting U.S. workers? Or are U.S. inventions mainly creating jobs overseas? A few years ago, most people took it for granted that what was good for companies was good for the greater economy. But the flat growth in living standards for most Americans during the last boom has raised doubts over the benefits of globalization. "Innovation shouldn't be an end in itself for U.S. policy," says trade theorist Ralph E. Gomory, a research professor at New York University's Stern School of Business. "I think we have to address whether a country can run on innovation. If you just do R&D to enhance economic activity in other countries, you are getting very little out of it." Gomory, a former top IBM (IBM) executive, retired in 2007 as president of the Alfred P. Sloan Foundation, which funded the National Academies study. Still, given all the debate over offshoring, the report's central findings are interesting. The authors marshal a wealth of evidence to show that, thanks to innovation, globalization hasn't eroded U.S. leadership even in some industries where there has been a substantial offshore shift in engineering and design. Despite an explosion of outsourcing to India and Ireland, for example, America's software industry still trumps the rest of the world in exports of packaged software and services, patent activity, and venture capital investment. The U.S. also accounts for 90% of chip-design patents—the same level as 1991—although Asian companies now do most of manufacturing. And when it comes to biotechnology, the U.S. is way ahead, luring more venture capital than all other countries combined. America First The U.S. even remains a heavyweight in personal computers, the study says, though China and Taiwan manufacture most of the hardware. That's because the real innovation and profits still belong to companies like Microsoft (MSFT) and Intel (INTC), makers of the operating system and central processors, while U.S. brands command 40% of the global market and still define breakthrough design.

**Aerospace is resilient**

Farrow 11 – degree in journalism from the University of Toronto, Past-Chair of The Writers' Union of Canada, Writer-in-Residence at the University of Alberta, (John, October 12, 2011, “The aerospace sector is more resilient than most others”, Derby Telegraph, Lexis)

With the aerospace industry making a steady climb out of the economic turmoil, things are set for Pattonair to increase its global footprint in the aerospace and defence market. The firm's general manager John Farrow is quietly confident the company is in the right industry at the right time. IT may be economic doom and gloom elsewhere but as far as the aerospace industry is concerned the future looks brighter than ever. Pattonair's growing customer base has a large order book. Sales of new passenger aircraft, such as the Boeing 787 Dreamliner and the Airbus A350 XWB are guaranteeing work for years to come. This means that **demand** for Pattonair's services, sourcing and delivering components, will hopefully ramp up a number of notches. The launch customer for the long-awaited Dreamliner, All Nippon Airways, has just received the first aircraft. And a number of other airlines will start receiving theirs. Meanwhile, development work on the Airbus A350 XWB is carrying on apace. Advanced orders for the aircraft are mounting up. It is all good news for Pattonair and as orders grow, the firm will be aiming to grow with it. At present, Pattonair provides approximately 100 million parts per year to over 1,000 customers across the world. But with the aerospace sector on an upward trajectory, these **numbers could increase.** John Farrow, Pattonair's general manager, said: "Many industries go through peaks and troughs. "One of the most obvious examples being the automotive sector, which seems to lurch from major downturn to exciting new models and a scramble for extra capacity in the space of very few years - take Jaguar as a great example. "However, in the view of many economic experts, **the aerospace industry is far more resilient than most**. "Yes, major effects such as 9/11 had far-reaching consequences for the industry, but in the main, the highs and lows are far more smoothed out.

#### Science diplomacy fails

**Dickson 9** – journalist for SciDev (David, Dir. SciDev.Net, “The limits of science diplomacy”, 6-4, http://www.scidev.net/en/climate-change-and-energy/science-networks/editorials/the-limits-of-science-diplomacy.html)

The scientific community has a deserved reputation for its international perspective — scientists often ignore national boundaries and interests when it comes to exchanging ideas or collaborating on global problems. So it is not surprising that science attracts the interest of politicians keen to open channels of communication with other states. Signing agreements on scientific and technological cooperation is often the first step for countries wanting to forge closer working relationships. More significantly, scientists have formed key links behind-the-scenes when more overt dialogue has been impossible. At the height of the Cold War, for example, scientific organisations provided a conduit for discussing nuclear weapons control. Only so much science can do Recently, the Obama administration has given this field a new push, in its desire to pursue "soft diplomacy" in regions such as the Middle East. Scientific agreements have been at the forefront of the administration's activities in countries such as Iraq and Pakistan. But — as emerged from a meeting entitled New Frontiers in Science Diplomacy, held in London this week (1–2 June) — using science for diplomatic purposes is not as straightforward as it seems. Some scientific collaboration clearly demonstrates what countries can achieve by working together. For example, a new synchrotron under construction in Jordan is rapidly becoming a symbol of the potential for teamwork in the Middle East. But whether scientific cooperation can become a precursor for political collaboration is less evident. For example, despite hopes that the Middle East synchrotron would help bring peace to the region, several countries have been reluctant to support it until the Palestine problem is resolved. Indeed, one speaker at the London meeting (organised by the UK's Royal Society and the American Association for the Advancement of Science) even suggested that the changes scientific innovations bring inevitably lead to turbulence and upheaval. In such a context, viewing science as a driver for peace may be wishful thinking. Conflicting ethos Perhaps the most contentious area discussed at the meeting was how science diplomacy can frame developed countries' efforts to help build scientific capacity in the developing world. There is little to quarrel with in collaborative efforts that are put forward with a genuine desire for partnership. Indeed, partnership — whether between individuals, institutions or countries — is the new buzzword in the "science for development" community. But true partnership requires transparent relations between partners who are prepared to meet as equals. And that goes against diplomats' implicit role: to promote and defend their own countries' interests. John Beddington, the British government's chief scientific adviser, may have been a bit harsh when he told the meeting that a diplomat is someone who is "sent abroad to lie for his country". But he touched a raw nerve. Worlds apart yet co-dependent The truth is that science and politics make an uneasy alliance. Both need the other. Politicians need science to achieve their goals, whether social, economic or — unfortunately — military; scientists need political support to fund their research. But they also occupy different universes. Politics is, at root, about exercising power by one means or another. Science is — or should be — about pursuing robust knowledge that can be put to useful purposes. A strategy for promoting science diplomacy that respects these differences deserves support. Particularly so if it focuses on ways to leverage political and financial backing for science's more humanitarian goals, such as tackling climate change or reducing world poverty. But a commitment to science diplomacy that ignores the differences — acting for example as if science can substitute politics (or perhaps more worryingly, vice versa), is dangerous. The Obama administration's commitment to "soft power" is already faltering. It faces challenges ranging from North Korea's nuclear weapons test to domestic opposition to limits on oil consumption. A taste of reality may be no bad thing.

### Space Radar

#### 1ac ev is neg

National Research Council 5 – Committee on the Navy's Needs in Space for Providing Future Capabilites, National Research Council. 2005. "The Navy's Needs in Space for Providing Future Capabilities" [www.nap.edu/catalog.php?record\_id=11299](http://www.nap.edu/catalog.php?record_id=11299)

These forms of support are just the beginning, however, and long-term S&T is needed in support of effective naval specification and use of SBR. As an example, further S&T funding could be provided to support a comparison of the expected performance of radars with which the Navy is familiar (such as the E-2C aircraft radar and its upgrades) with the various options for SBR. Such analysis would help establish and maintain the connection between specialized maritime radar experts, the operational Navy, and sthe SBR office.

#### Satellites fail – antenna and tech barriers - takes out radar

**Spaceflight 08** (“Space Radar,” September 2008, http://www.spyflight.co.uk/sbr.htm, Sawyer)

One of the major stumbling blocks in the differing requirements of the intelligence and military communities is whether the Space Radar system should have a MTI capability. A SAR satellite sufficient for the requirements of the intelligence community would probably only require a relatively small antenna of around 40 square meters, however, the MTI capability sought by the military, sufficently sensitive to track ground vehicles travelling at 30 kilometeres per hour, would probably require an antenna as large as 100 square meters at vastly increased cost. Another area of serious concern is the total estimated cost of the proposed Space Radar system. Estimates for a nine satellite sustem with 40 square meter antennas range bwteen $35 - $50 billion, but given the inability of recent military space systems to stay within budget and the complex immauture technologies involved, there would be every chance the final cost would be more than double this figure.

#### Status quo solves radar

**Spaceflight 08** (“Space Radar,” September 2008, http://www.spyflight.co.uk/sbr.htm, Sawyer)

In an attempt to try and still try and leverage some capability in this area, the US Air Force is now attemting to see if it can benefit from paying for access to data from international and commercial radar satellites already in orbit. Currently in orbit are the Canadian Radarsat-2, the German SAR-Lupe constellation and the Israeli TecSAR satellite and funding has been requested from "all radar data providers and space radar system developers" to allow access to commence as early as 2009. Radarsat-2 was launched in Dec 2007, the last of the five SAR-Lupe satellites was deployed in Jul 2008 and TecSAR was launched in Jan 2008, so whilst these modern systems would not have many of the bells and whistles that Space Radar would have provided, drawing data from all of them would nevertheless still go some way to providing the capability sought by the US Air Force. The first step in this process will be a demonstration period when the performance, capability and utility of the radar data available from the current systems can be evaluated and the necessary operational concepts agreed.

#### SSP requires 100,000 launches to build

Al **Globus**, space settlement advocate, Spring 0**8**, “On The Moon”, AdAstra: The Magazine of the National Space Society, http://www.nss.org/adastra/AdAstra-SBSP-2008.pdf, umn-rks

While it has been suggested that in the long term, space solar power (SSP) can provide all the clean, renewable energy Earth could possibly need (and then some), there has been less discussion on the most economic way to produce that power. If we want to build two or three solar power satellites, one obvious approach is to manufacture the parts on the ground, launch them into orbit, and assemble them there, just like the International Space Station. But a few power satellites won’t solve our energy or greenhouse gas problems. We’ll need more. To generate all the energy used on Earth today (about 15 terawatts) would require roughly 400 solar power satellites 10 kilometers across. Assuming advanced, lightweight space solar power technology, this will require at least 100,000 launches to bring all the materials up from Earth. But even 400 satellites won’t be enough. Billions of people today have totally inadequate energy supplies—and the population is growing. Providing everyone with reasonable quantities of energy might take five to ten times more than we produce today. To supply this energy from solar power satellites requires a staggering launch rate. There are two major issues with a very high launch rate.

#### That causes space debris

John **Kennewell**, 200**5**, “Overview of Orbital Space Debris”, Australian Government: IPS Radio and Space Services, http://www.ips.gov.au/Educational/4/2/1, umn-rks

The initial and continuing source of space debris is the launch of satellites. Not only the satellites themselves add to the population of orbiting space objects, but often the last stages of the rockets that are used to place them in orbit also remain aloft for many years. As satellites get old they deteriorate under the influence of the space environment. Outgassing can not only release gases, but may also take other materials with them, as the gas beneath a surface slowly makes it way into the surrounding environment. The strong solar UV in space can cause the deterioration of many materials. Paint and other surface materials may be expelled in flakes. More catastrophic than age related deterioration are satellite fragmentation events. These may result from collisions with other (external) objects, or they may be explosive, as when remnant fuel in an old spacecraft undergoes an exothermic reaction (ignites). Both of these type of events can produce an astounding number of small fragments that become a new source of space debris.

#### No risk of collisions – debris also protects our satellites which internal link turns the impact

Butterworth, 11 (Bob Butterworth, former senior advisor to leader of Space Command, “Obama Administration's 'Three Cs' Means a Failing Space Policy,” AOL Defense, November 7, 2011, http://defense.aol.com/2011/11/07/obama-administrations-three-cs-means-a-failing-space-policy/)

Consider, for example, the first "c:" Is space becoming increasingly congested? The US government says publicly that there are some 17,000 things that are 10 centimeters or bigger and many more items that are smaller orbiting the earth. That's a lot, but those numbers say nothing about congestion. For travel purposes, I don't care how many cars there are in northern Virginia; I care how many are on the road at the same time and place as I. The relevant question is not congestion but whether the probability of collision is increasing, and at least one informal study suggests it *has not changed* over the past decade or so. That finding might be due in part to better information about the what/where/when of space objects; if so, it suggests that *orbital conjunctions are* already being *managed successfully*, due primarily to conjunction analyses and collision warnings provided by U.S. Strategic Command. As explained in a recent Time magazine article, the risk of accidents "is *minimized* by the fact that all objects orbiting at the same altitude also move at the same speed." The Defense Department publication also mentions congestion in the electromagnetic spectrum, but there are longstanding measures to address both intentional and unintentional interference in this domain. From a defense perspective growth in the orbital population is not all bad. As the environment gets more complicated, relative military advantage will accrue to the superior ability to identify and track objects and to conduct sophisticated maneuvers on orbit with great precision. In these capabilities the U.S. is generally ahead of potential antagonists and should be able to make it increasingly difficult for adversaries to identify, track, and *target* militarily critical satellites.

#### They don’t solve satellite failure

Gorman 05 – studies at School of Human and Environmental Studies (Alice, “The Archaeology of Orbital Space”, 2005, page 15 http://flinders.academia.edu/AliceGorman/Papers/77163/The\_archaeology\_of\_orbital\_space)

It is important to note that controlling human debris in the space environment does not automatically eliminate all hazards to materials or human life. Collisions with meteoroids, meteor swarms like the Leonids and Perseids, and high-energy particles, will still occur. There are many other elements of the space environment that cause material degradation and loss of function. One of the most significant results from the Long Duration Exposure Facility (LDEF), launched in 1984 to examine the effect of the space environment on commonly used materials, was the recognition that significant amounts of damage were caused by the synergistic effects of several environmental factors of LEO space including exposure to ultraviolet radiation and atomic oxygen erosion [5, 27]. The risks posed by debris of human origin cannot be considered in isolation from the total space environment, of which it now forms a part.

**Monitoring doesn’t reach the Arctic circle**

Military Hub 11 (Military News organization, “U.S. Navy Challenged by Climate Change,” http://www.militaryhub.com/article.cfm?id=314)

In 2007, as a result of global warming, the melting Arctic pack ice allowed marine ships to traverse the Northwest Passage for the first time. It is estimated that the Northwest Passage along Canada and Alaska will become navigable as soon as 2030. Navigating the Northwest Passage opens up a trade route between the Atlantic and Pacific oceans for shipping, tourism, and natural resource exploitation. Territorial claims are in dispute as nations compete for access to untouched natural resources. U.S. MILITARY LEFT OUT IN THE ARCTIC COLD The Arctic territories have been ignored by the U.S. military, largely due to their inhospitable climate. As a result, *military equipment is not built to withstand Arctic cold*. The range of navy *satellites* in geosynchronous orbit *falls short of the north Arctic circle*, breaking down communication signals in those previously unreachable zones.

#### Winter solstice blocks data

**McInnes 02**(Colin R McInnes, Dept. of Aerospace Engineering, University of Glasgow “Near-Term Mission Applications For Low Performance Solar Sails,” Strathprints, Development Archive, Sawyer)

It can be shown that solar sails may be used to generate artificial equilibrium solutions in the Sun-Earth three-body system (McInnes, 1991, 1994). While in-plane equilibria have applications for missions such as Geostorm, out-of-plane equilibria may be utilised for continual, low resolution imaging of high latitude regions of the Earth, or for high latitude communication services (Forward, 1991). In fact, if the artificial Lagrange point is located high enough above the ecliptic plane, the solar sail may be stationed directly over the north pole during the summer solstice. The solar sail can be stationed directly over the north pole at the summer solstice, as shown in Fig. 3, but will not remain over the pole during the entire year due to the tilt of the polar axis. From this unique vantage point a constant daylight view of the north pole is available at the summer solstice, however six months later at the winter solstice the polar regions are in permanent darkness. A simulation of the field of view at the summer solstice is shown in Fig. 3. It is found that the required solar sail performance can be minimised by an appropriate selection of polar altitude. It can be shown that an equilibrium location some 3.8 million km (596 Earth radii) above the north pole will minimise demands on the solar sail performance (McInnes, 2000b). Closer equilibrium locations are possible using larger, or higher performance solar sails, or indeed selecting a less demanding viewing geometry. At this location 3.8 million km above the Earth, the solar sail is stationed directly over the north pole during the summer solstice. To station a small 50 kg payload at this unique polar view point requires an 86 x 86 m sail, assuming a sail assembly loading of 10 g m-2, as detailed in Table 3.

**No extinction**

**O’Neill 4** O’Neill 8/19/2004 [Brendan, “Weapons of Minimum Destruction” http://www.spiked-online.com/Articles/0000000CA694.htm]

David C Rapoport*,* professor of political science at University of California, Los Angeles and editor of the Journal of Terrorism and Political Violence, has examined what he calls 'easily available evidence' relating to the historic use of chemical and biological weapons. He found something surprising - such weapons do not cause mass destruction. Indeed, whether used by states, terror groups or dispersed in industrial accidents, they tend to be far less destructive than conventional weapons. 'If we stopped speculating about things that might happen in the future and looked instead at what has happened in the past, we'd see that our fears about WMD are misplaced', he says. Yet such fears remain widespread. Post-9/11, American and British leaders have issued dire warnings about terrorists getting hold of WMD and causing mass murder and mayhem. President George W Bush has spoken of terrorists who, 'if they ever gained weapons of mass destruction', would 'kill hundreds of thousands, without hesitation and without mercy' (1). The British government has spent £28million on stockpiling millions of smallpox vaccines, even though there's no evidence that terrorists have got access to smallpox, which was eradicated as a natural disease in the 1970s and now exists only in two high-security labs in America and Russia (2). In 2002, British nurses became the first in the world to get training in how to deal with the victims of bioterrorism (3). The UK Home Office's 22-page pamphlet on how to survive a terror attack, published last month, included tips on what to do in the event of a 'chemical, biological or radiological attack' ('Move away from the immediate source of danger', it usefully advised). Spine-chilling books such as Plague Wars: A True Story of Biological Warfare, The New Face of Terrorism: Threats From Weapons of Mass Destruction and The Survival Guide: What to Do in a Biological, Chemical or Nuclear Emergency speculate over what kind of horrors WMD might wreak. TV docudramas, meanwhile, explore how Britain might cope with a smallpox assault and what would happen if London were 'dirty nuked' (4). The term 'weapons of mass destruction' refers to three types of weapons: nuclear, chemical and biological. A chemical weapon is any weapon that uses a manufactured chemical, such as sarin, mustard gas or hydrogen cyanide, to kill or injure. A biological weapon uses bacteria or viruses, such as smallpox or anthrax, to cause destruction - inducing sickness and disease as a means of undermining enemy forces or inflicting civilian casualties. We find such weapons repulsive, because of the horrible way in which the victims convulse and die - but they appear to be less 'destructive' than conventional weapons. 'We know that nukes are massively destructive, there is a lot of evidence for that', says Rapoport. But when it comes to chemical and biological weapons, 'the evidence suggests that we should call them "weapons of minimum destruction", not mass destruction', he says. Chemical weapons have most commonly been used by states, in military warfare. Rapoport explored various state uses of chemicals over the past hundred years: both sides used them in the First World War; Italy deployed chemicals against the Ethiopians in the 1930s; the Japanese used chemicals against the Chinese in the 1930s and again in the Second World War; Egypt and Libya used them in the Yemen and Chad in the postwar period; most recently, Saddam Hussein's Iraq used chemical weapons, first in the war against Iran (1980-1988) and then against its own Kurdish population at the tail-end of the Iran-Iraq war. In each instance, says Rapoport, chemical weapons were used more in desperation than from a position of strength or a desire to cause mass destruction. 'The evidence is that states rarely use them even when they have them', he has written. 'Only when a military stalemate has developed, which belligerents who have become desperate want to break, are they used.' (5) As to whether such use of chemicals was effective, Rapoport says that at best it blunted an offensive - but this very rarely, if ever, translated into a decisive strategic shift in the war, because the original stalemate continued after the chemical weapons had been deployed. He points to the example of Iraq. The Baathists used chemicals against Iran when that nasty trench-fought war had reached yet another stalemate. As Efraim Karsh argues in his paper 'The Iran-Iraq War: A Military Analysis': 'Iraq employed [chemical weapons] only in vital segments of the front and only when it saw no other way to check Iranian offensives. Chemical weapons had a negligible impact on the war, limited to tactical rather than strategic [effects].' (6) According to Rapoport, this 'negligible' impact of chemical weapons on the direction of a war is reflected in the disparity between the numbers of casualties caused by chemicals and the numbers caused by conventional weapons. It is estimated that the use of gas in the Iran-Iraq war killed 5,000 - but the Iranian side suffered around 600,000 dead in total, meaning that gas killed less than one per cent. The deadliest use of gas occurred in the First World War but, as Rapoport points out, it still only accounted for five per cent of casualties. Studying the amount of gas used by both sides from1914-1918 relative to the number of fatalities gas caused, Rapoport has written: 'It took a ton of gas in that war to achieve a single enemy fatality. Wind and sun regularly dissipated the lethality of the gases. Furthermore, those gassed were 10 to 12 times as likely to recover than those casualties produced by traditional weapons.' (7) Indeed, Rapoport discovered that some earlier documenters of the First World War had a vastly different assessment of chemical weapons than we have today - they considered the use of such weapons to be preferable to bombs and guns, because chemicals caused fewer fatalities. One wrote: 'Instead of being the most horrible form of warfare, it is the most humane, because it disables far more than it kills, ie, it has a low fatality ratio.' (8) 'Imagine that', says Rapoport, 'WMD being referred to as more humane'. He says that the contrast between such assessments and today's fears shows that actually looking at the evidence has benefits, allowing 'you to see things more rationally'. According to Rapoport, even Saddam's use of gas against the Kurds of Halabja in 1988 - the most recent use by a state of chemical weapons and the most commonly cited as evidence of the dangers of 'rogue states' getting their hands on WMD - does not show that unconventional weapons are more destructive than conventional ones. Of course the attack on Halabja was horrific, but he points out that the circumstances surrounding the assault remain unclear. 'The estimates of how many were killed vary greatly', he tells me. 'Some say 400, others say 5,000, others say more than 5,000. The fighter planes that attacked the civilians used conventional as well as unconventional weapons; I have seen no study which explores how many were killed by chemicals and how many were killed by firepower. We all find these attacks repulsive, but the death toll may actually have been greater if conventional bombs only were used. We know that conventional weapons can be more destructive.' Rapoport says that terrorist use of chemical and biological weapons is similar to state use - in that it is rare and, in terms of causing mass destruction, not very effective. He cites the work of journalist and author John Parachini, who says that over the past 25 years only four significant attempts by terrorists to use WMD have been recorded. The most effective WMD-attack by a non-state group, from a military perspective, was carried out by the Tamil Tigers of Sri Lanka in 1990. They used chlorine gas against Sri Lankan soldiers guarding a fort, injuring over 60 soldiers but killing none. The Tamil Tigers' use of chemicals angered their support base, when some of the chlorine drifted back into Tamil territory - confirming Rapoport's view that one problem with using unpredictable and unwieldy chemical and biological weapons over conventional weapons is that the cost can be as great 'to the attacker as to the attacked'. The Tigers have not used WMD since.

## 2nc

### uavs

#### SSP can’t be used for UAVs or the military

W. Neil **Johnson**, High-energy Space Environment Branch: Space Science Division, **et. all**, 10/23/0**9**, “Space-based Solar Power: Possible Defense Applications and Opportunities for NRL Contributions”, Naval Research Laboratory, http://www.nss.org/settlement/ssp/library/2008-NRLSBSP-PossibleDefenseApplicationsAndOpportunities.pdf, umn-rks

Direct SBSP power delivery to daily patrols, either individuals or vehicles, seems problematic at best. In considering this, note that at microwave frequencies of 1.5 to 15 GHz, safe power densities for continuous exposure are between 1 and 10 mW /cm 2 , or about 1 to 10 W per sq ft., respectively (IEEE C95.1-1999). The FCC (Bulletin 65) limits this exposure more, to a constant 1 mW /cm 2 (about 1 W per sq ft) above 1.5 GHz. Examples of end-user consumption include the following: • Radio transmitters: Considerable power needs to be available, for example, to operate a radio – tens to hundreds of Watts while transmitting. • Vehicle operation: A typical car only requires tens of horsepower to travel at reasonable speeds on a highway (much more when accelerating or traversing rough terrain). 1 HP is approximately 750 W, so even a 10 or 20 HP requirement becomes a requirement for 7.5 to 15 kW of power, even before considering the conversion efficiency between electrical and mechanical energy. The preferred application of power to these problems would require the ability to directly beam energy to each recipient rather than blanketing the area for several reasons: • Only the people/vehicles need the power – a tremendous fraction of power is wasted if it is transmitted everywhere. • Transmitting power everywhere is like providing a natural resource – one’s enemies can also use it (for free!), greatly reducing the advantage one gains by developing and implementing the system (at great cost). At radio frequency (RF) frequencies, it is (probably impossible, but optimistically speaking) extraordinarily difficult to directly point beams small enough to solve the efficiency problem from space. Extraordinarily large antenna apertures would likely be required at microwave frequencies. Perhaps even more difficult would be how to tell the power source exactly where to point the beams (potentially several thousand of them, all to a delivered accuracy of 1 m or less). To further compound the problem, if the beam pointing challenges were solved, power density issues would need to be resolved – that is, if there was enough power in the beam to do any good, it would likely pose a safety hazard to the people in or near the beam. Based on these statements, direct delivery of energy using microwave power to a final application to small, mobile units is not practically feasible with near-term foreseeable technology**.**

### air power

#### Airpower supremacy resilient

**Carpenter and Deptula 2008** - \*Air Force Major, instructor at the Industrial College of the Armed Forces, \*\*Lt. General, deputy chief of staff for Intelligence, Surveillance, and Recon for the Air Force (2/21, Mace and David, "Aerospace Nations", Washington Times, http://www.washingtontimes.com/news/2008/feb/21/aerospace-nations/print/, WEA)

We are an aerospace nation in many ways. Our commercial air arm towers over any other nation. Our Navy's ability to project airpower from the sea is unmatched by any other navy. Our Marines' ability to provide close support to surface forces is "par excellence." Our Army's helicopter force — more than 6,000 strong — is the largest in the world. Our Air Force leads the world in aerospace capability in all aspects of the third dimension. Charged with leading military operations in air, space, and cyberspace, the Air Force provides the global vigilance, global reach and global power that underpin us as the world's sole superpower.

#### Air power fails when it matters

**Allan 94** (Charles Allan, Air Force National Defense Fellow at the CSIS, “Extended Conventional Deterrence: In from the Cold and Out of the Nuclear Fire?” Washington Quarterly, Summer, 1994)

Information. As we have seen, imperfect information about a defender's commitment may be present for both the defender and the attacker. Prior to the crisis, the "intended deterrees [themselves] will not know how much of a politically and technically credible threat it would take to deter them" (Gray 1991, 14). In addition, as Arquilla and Davis point out (Arquilla and Davis 1992; Davis and Arquilla 1991), adversaries have historically discounted key elements of U.S. power such as strategic mobility, precision weapons, maritime power, and airpower due to lack of familiarity with these systems. Without understanding these elements of U.S. military strength, the regional aggressor will view the absence of U.S. heavy ground forces as evidence of a lack of both capability and commitment. Moreover, Adam Garfinkle (1992) asserts that third world leaders are frequently misled into overly optimistic views of their own forces' capabilities. Without clear recognition of U.S. power, deterrence cannot hold.

### indopak

**No chance of Pakistan instability or a coup**

**TOI 12** (Trust of India, “No chance of military coup in Pak, says Gilani,” http://www.indianexpress.com/news/no-chance-of-military-coup-in-pak-says-gilani/905364/)

Prime Minister Yousuf Raza Gilani has said that there was “no chance” of a military coup in Pakistan ever as all stakeholders including the army, desires democracy and stability in the country. “I don’t think there will be a coup in Pakistan ever. There is no threat to democracy,” Gilani told reporters on the sidelines of the World Economic Forum (WEF) at Davos in Switzerland. “No state institution, including the military, or the people of Pakistan want a coup and all stakeholders favour a democracy,” he said. There was “no chance” of a military takeover, he added.

**No chance of Pakistan collapse**

**Bandow 09** – Senior Fellow @ Cato, former special assistant to Reagan (11/31/09, Doug, “Recognizing the Limits of American Power in Afghanistan,” Huffington Post, http://www.cato.org/pub\_display.php?pub\_id=10924)

From Pakistan's perspective, limiting the war on almost any terms would be better than prosecuting it for years, even to "victory," whatever that would mean. In fact, the least likely outcome is a takeover by widely unpopular Pakistani militants. The Pakistan military is the nation's strongest institution; while the army might not be able to rule alone, it can prevent any other force from ruling. Indeed, Bennett Ramberg made the important point: "Pakistan, Iran and the former Soviet republics to the north have demonstrated a brutal capacity to suppress political violence to ensure survival. This suggests that even were Afghanistan to become a terrorist haven, the neighborhood can adapt and resist." The results might not be pretty, but the region would not descend into chaos. In contrast, warned Bacevich: "To risk the stability of that nuclear-armed state in the vain hope of salvaging Afghanistan would be a terrible mistake."

**Collapse won’t escalate**

**Collins and Wohlforth, 4** – \*professor of political science at Notre Dame AND \*\*professor of government at Dartmouth (Kathleen and William, “Defying ‘Great Game’ Expectations, Strategic Asia 2003-2004, http://www.dartmouth.edu/~govt/docs/15-Central%20Asia-press.pdf)

While cautious realism must remain the watchword concerning an impoverished and potentially unstable region comprised of fragile and authoritarian states, our analysis yields at least conditional and relative optimism. Given the confluence of their chief strategic interests, the major powers are in a better position to serve as a stabilizing force than analogies to the Great Game or the Cold War would suggest. It is important to stress that the region’s response to the profoundly destabilizing shock of coordinated terror attacks was increased cooperation between local governments and China and Russia, and—multipolar rhetoric notwithstanding—between both of them and the United States. If this trend is nurtured and if the initial signals about potential SCO-CSTO-NATO cooperation are pursued, another destabilizing shock might generate more rather than less cooperation among the major powers. Uzbekistan, Kyrgyzstan, Tajikistan, and Kazakhstan are clearly on a trajectory that portends longer-term cooperation with each of the great powers. As military and economic security interests become more entwined, there are sound reasons to conclude that “great game” politics will not shape Central Asia’s future in the same competitive and destabilizing way as they have controlled its past. To the contrary, mutual interests in Central Asia may reinforce the broader positive developments in the great powers’ relations that have taken place since September 11, as well as reinforce regional and domestic stability in Central Asia.

**War won't escalate or draw in outside powers or cause extinction**

**Dyer 2002** (5/24, Gwinette, Hamilton Spectator, "Nuclear war a possibility over Kashmir", Lexis, WEA)

For those who do not live in the subcontinent, the most important fact is that the damage would be largely confined to the region. The Cold War is over, the strategic understandings that once tied India and Pakistan to the rival alliance systems have all been cancelled, and no outside powers would be drawn into the fighting.

The detonation of a hundred or so relatively small nuclear weapons over India and Pakistan would not cause grave harm to the wider world from fallout.

People over 40 have already lived through a period when the great powers conducted hundreds of nuclear tests in the atmosphere, and they are mostly still here.

### competitiveness

**They are just wrong – its not a zero sum game – downstream development means our competitiveness will still be high**

**Bhide 08** – Professor at Harvard School of Government (Amar, Nov 1, 2008 , “Is the U.S. Losing Its Economic Edge?”, <http://www.inc.com/magazine/20081101/q-is-the-us-losing-its-economic-edge_pagen_2.html>) Jacome

You write that the dire predictions of so-called techno-nationalists are misplaced. Who are these techno-nationalists, and what are they missing?

These are people who, in the context of trade and globalization, think that protectionism is bad, but that in order for us to survive the "onslaught of competition" from China and India, we have to crank up our technological investments so that we continuously stay ahead. These people say, let's invest more in R&D, let's invest more in basic research, let's train more engineers -- on the premise that the greater the technological lead that you have vis-à-vis other nations, the more prosperous you're going to be.

And that's wrong?

Absolutely. The U.S. isn't locked into a winner-take-all race for scientific and technological leadership with other nations. What's more, the growth of research capabilities in China and India, and thus their share of cutting-edge research, does not reduce U.S. prosperity. My analysis suggests exactly the opposite. Advances abroad will help improve living standards in the U.S. Moreover, the benefits I identify aren't the usual ones of how prosperity abroad increases opportunities for U.S. exporters. I show how cutting-edge research developed abroad benefits domestic production and consumption.

That's counterintuitive for most people.

It's helpful to think of a specific example. The World Wide Web was invented by a British scientist living in [Switzerland](http://www.inc.com/topic/Switzerland). Think of how much this invention in Switzerland has revolutionized lives in the U.S. and has improved U.S. prosperity, probably to a greater degree than it has in Switzerland and certainly to a greater degree than it has in most other parts of the world. Why? Because the U.S. is really good at taking things like the Web and weaving them into our commercial fabric. Or, to give you another popular example: Many of the high-level technologies associated with the iPod were developed outside the U.S. Compression software comes from [Germany](http://www.inc.com/topic/Germany); the design of the chip comes from the [U.K.](http://www.inc.com/topic/United+Kingdom) The whole idea of an MP3 player comes out of [Singapore](http://www.inc.com/topic/Singapore). But most of the value has been captured in the U.S., because the U.S. happens to represent the majority of the use of MP3 players in the world.

So the point is that U.S. businesses are particularly adept at taking inventions and applying them to the marketplace?

No, it's more than just applying them to the marketplace. It's also about our ability to consume these innovations. That's the really critical piece. At the Summer Olympics in [Beijing](http://www.inc.com/topic/Beijing), Coca-Cola (NASDAQ:COKE) had a pavilion set up where they were teaching the Chinese how to drink Coke, explaining that it should be drunk cold. That really caught my attention. Think about how much further the U.S. is on the consumption side.

What does that really tell us?

That we live in a more commercial culture than any in history. There is no other country where commerce and business have so completely pervaded everyday life. And so people are always looking for ways to serve consumers. Look at the historical differences between [Europe](http://www.inc.com/topic/Europe) and the U.S. In Europe, consumption started off for aristocrats. A classic example in Europe involves guns. When people first made sporting guns, they were primarily built for the aristocracy to hunt. But when people made guns in the U.S., they were used by farmers and ranchers. So these more standardized guns were made in the U.S. at a lower cost and for a more mass market.

Even if Americans are the best consumers on the planet, why shouldn't we still be fearful of the rise of China and India and their incredibly fast-growing economies?

Because economic systems don't compete with each other. Every gadget, car, or other product imported into the country brings in its wake what I call nontraded services. Consider a car. I bet there's three times as much value in all the nontraded activities that go along with the car as in the import value of the car itself: the employment at the dealer's showroom, the six-month servicing, the inspections, and so on. And every new physical gizmo, regardless of where it is manufactured, will end up generating many times the employment in the nontraded services sector it does in the traded sector.

Still, wouldn't U.S. companies be in a stronger position if they invested more in research and development?

No. Look at a company like IBM (NYSE:IBM). You might think the success of IBM was all about its technology. But IBM's great revolution was as much in sales and marketing as it was in the invention of the IBM 360. And the system that IBM developed for sales and marketing was not only of tremendous value to IBM in the sense that it allowed IBM to establish a dominant position in the computer industry. It was also of enormous value to the economy as a whole, because **it was through** the **sales** and marketing process **that companies learned to use computers effectively.** And that transformed work in America. It wasn't simply because somebody invented this box and called it a computer and plugged it in. There was a great deal of sales and marketing that was necessary, not just to sell computers but also to put them to use.

**Competitiveness theory false and fear-mongering – US will always have an advantage and there is no zero sum game**

**Fallows 10** – correspondent for *The Atlantic Monthly,* studied economics at Oxford University as a Rhodes Scholar. He has been an editor of *The Washington Monthly* and of *Texas Monthly,* and from 1977 to 1979 he served as President Jimmy Carter's chief speechwriter. His first book, [*National Defense*](http://www.amazon.com/exec/obidos/ISBN=0394753062/theatlanticmonthA/ref=nosim/), won the American Book Award in 1981; he has written seven others (James. “How America Can Rise Again”, Jan/Feb edition, <http://www.theatlantic.com/doc/201001/american-decline>)

This is new. Only with America’s emergence as a global power after World War II did the idea of American “decline” routinely involve falling behind someone else. Before that, it meant falling short of expectations—God’s, the Founders’, posterity’s—or of the previous virtues of America in its lost, great days. “The new element in the ’50s was the constant comparison with the Soviets,” Michael Kazin told me. Since then, external falling-behind comparisons have become not just a staple of American self-assessment but often a crutch. If we are concerned about our schools, it is because children are learning more in Singapore or India; about the development of clean-tech jobs, because it’s happening faster in China. Having often lived outside the United States since the 1970s, I have offered my share of falling-behind analyses, including a book-length comparison of Japanese and American strengths (More Like Us) 20 years ago. But at this point in America’s national life cycle, I think the exercise is largely a distraction, and that Americans should concentrate on what are, finally, our own internal issues to resolve or ignore. Naturally there are lessons to draw from other countries’ practices and innovations; the more we know about the outside world the better, as long as we’re collecting information calmly rather than glancing nervously at our reflected foreign image. For instance, if you have spent any time in places where tipping is frowned on or rare, like Japan or Australia, you view the American model of day-long small bribes, rather than one built-in full price, as something similar to baksheesh, undignified for all concerned. Naturally, too, it’s easier to draw attention to a domestic problem and build support for a solution if you cast the issue in us-versus-them terms, as a response to an outside threat. In [*If We Can Put a Man on the Moon …*](http://www.amazon.com/exec/obidos/ISBN=1422166368/theatlanticmonthA/ref=nosim/), their new book about making government programs more effective, William Eggers and John O’Leary emphasize the military and Cold War imperatives behind America’s space program. “The race to the moon was a contest between two systems of government,” they wrote, “and the question would be settled not by debate but by who could best execute on this endeavor.” Falling-behind arguments have proved convenient and powerful in other countries, too. But whatever their popularity or utility in other places at other times, falling-behind concerns seem too common in America now. As I have thought about why overreliance on this device increasingly bothers me, I have realized that it’s because my latest stretch out of the country has left me less and less interested in whether China or some other country is “overtaking” America. The question that matters is not whether America is “falling behind” but instead something like John Winthrop’s original question of whether it is falling short—or even falling apart. This is not the mainstream American position now, so let me explain. First is the simple reality that one kind of “decline” is inevitable and therefore not worth worrying about. China has about four times as many people as America does. Someday its economy will be larger than ours. Fine! A generation ago, its people produced, on average, about one-sixteenth as much as Americans did; now they produce about one‑sixth. That change is a huge achievement for China—and a plus rather than a minus for everyone else, because a business-minded China is more benign than a miserable or rebellious one. When the Chinese produce one-quarter as much as Americans per capita, as will happen barring catastrophe, their economy will become the world’s largest. This will be good for them but will not mean “falling behind” for us. We know that for more than a century, the consciousness of decline has been a blight on British politics, though it has inspired some memorable, melancholy literature. There is no reason for America to feel depressed about the natural emergence of China, India, and others as world powers. But second, and more important, America may have reasons to feel actively optimistic about its prospects in purely relative terms. **The crucial american advantage**  Let’s start with the more modest claim, that China has ample reason to worry about its own future. Will the long-dreaded day of reckoning for Chinese development finally arrive because of environmental disaster? Or via the demographic legacy of the one-child policy, which will leave so many parents and grandparents dependent on so relatively few young workers? Minxin Pei, who grew up in Shanghai and now works at Claremont McKenna College, in California, has predicted in [*China’s Trapped Transition*](http://www.amazon.com/exec/obidos/ISBN=067402754X/theatlanticmonthA/ref=nosim/) that within the next few years, tension between an open economy and a closed political system will become unendurable, and an unreformed Communist bureaucracy will finally drag down economic performance. America will be better off if China does well than if it flounders. A prospering China will mean a bigger world economy with more opportunities and probably less turmoil—and a China likely to be more cooperative on environmental matters. But whatever happens to China, prospects could soon brighten for America. The American culture’s particular strengths could conceivably be about to assume new importance and give our economy new pep. International networks will matter more with each passing year. As the one truly universal nation, the United States continually refreshes its connections with the rest of the world—through languages, family, education, business—in a way no other nation does, or will. The countries that are comparably open—Canada, Australia—aren’t nearly as large; those whose economies are comparably large—Japan, unified Europe, eventually China or India—aren’t nearly as open. The simplest measure of whether a culture is dominant is whether outsiders want to be part of it. At the height of the British Empire, colonial subjects from the Raj to Malaya to the Caribbean modeled themselves in part on Englishmen: Nehru and Lee Kuan Yew went to Cambridge, Gandhi, to University College, London. Ho Chi Minh wrote in French for magazines in Paris. These days the world is full of businesspeople, bureaucrats, and scientists who have trained in the United States. Today’s China attracts outsiders too, but in a particular way. Many go for business opportunities; or because of cultural fascination; or, as my wife and I did, to be on the scene where something truly exciting was under way. The Haidian area of Beijing, seat of its universities, is dotted with the faces of foreigners who have come to master the language and learn the system. But true immigrants? People who want their children and grandchildren to grow up within this system? Although I met many foreigners who hope to stay in China indefinitely, in three years I encountered only two people who aspired to citizenship in the People’s Republic. From the physical rigors of a badly polluted and still-developing country, to the constraints on free expression and dissent, to the likely ongoing mediocrity of a university system that emphasizes volume of output over independence or excellence of research, the realities of China heavily limit the appeal of becoming Chinese. Because of its scale and internal diversity, China (like India) is a more racially open society than, say, Japan or Korea. But China has come nowhere near the feats of absorption and opportunity that make up much of America’s story, and it is very difficult to imagine that it could do so—well, ever. Everything we know

### at: global ssp inev

#### It’s cooperative

**PIT 12**

http://articles.timesofindia.indiatimes.com/2012-11-02/india/34877401\_1\_space-solar-power-space-collaboration-v-ponraj

China proposes space collaboration with India

PTI Nov 2, 2012, 09.22PM IST

Besides briefing the 82-year-old Kalam about its recent mission to send three astronauts, including China's first woman to space, CAST officials have shown "great interest" in partnering the mission with international collaboration for Space based [Solar Power](http://articles.timesofindia.indiatimes.com/2012-11-02/india/34877401_1_space-solar-power-space-collaboration-v-ponraj) initiative, said V Ponraj, a scientist who is part of Kalam's delegation.

"Wu Yansheng, President of CAST has said his organisation is very much interested to collaborate with India and ISRO on the space mission and would like to establish a formal initiative from both the nations," he said in a statement.

"Kalam assured, certainly he will take up this interest to the Government of India and ISRO, so that a hard cooperation and [collaboration](http://articles.timesofindia.indiatimes.com/2012-11-02/india/34877401_1_space-solar-power-space-collaboration-v-ponraj) between ISRO, DRDO and CAST is realised on one of the great mission, may be Space-based Solar Power initiative so that both India and China can work for long term association with proper [funding](http://timesofindia.indiatimes.com/topic/Funding) along with other willing space faring nations to bring space solar power to earth," the statement said.

#### More ev

**Flournoy 2010** - Professor and Editor, Online Journal of Space Communication, Scripps College of Communication, Ohio University

Don Flournoy, , Athens OH 45701, 740-593-4866

http://www.spaceenergy.com/announcements/international-cooperation-in-space-why-not-space-solar-power

In the context of the US National Space Policy 2010, an SSP Feasibility Study could lead the way in assessing and promoting “appropriate cost and risk sharing among participating nations in international partnerships." Such a study would demonstrate U.S. “tangible leadership in space,” leveraging the capabilities of allies while assuring continuing adherence to the UN Treaty on Exploration and Use of Outer Space – now signed by 125 states including China and India - that dictates “nuclear weapons and other weapons of mass destruction” shall not be placed in outer space.   
At the International Space Development Conference (ISDC-Chicago) in May 2010, multiple nations participated in the First NSS Solar Power Symposium to examine in depth opportunities and challenges for energy generation in near space. Former President of India A.P.J. Abdul Kalam, scientist, aeronautical engineer and proponent of SSP, addressing the conference via videoconference, spoke to the need for international cooperation in space. Dr. Kalam proposed a multi-lateral global initiative that could map out for us what yet needs to be done to bring SSP to operational reality.  
In the wake of the Gulf of Mexico oil disaster, we think it is now time for the U.S. to put Space Solar Power on our national energy and climate change agenda. At the same time, we must seek opportunities to learn from and participate with Canada, China, India, Japan, European Union and others taking their first tentative steps to bring space solar energy to earth.

### garretson

#### Their aff is science fiction garbage

Cunningham 8/9 (Nicholas, “Is Space-Based Solar Power realistic?”

http://americansecurityproject.org/blog/2012/is-space-based-solar-power-realistic/

An interesting [article](http://www.au.af.mil/au/ssq/2012/spring/garretson.pdf) in Strategic Studies Quarterly by Peter Garretson, Lt.Col., USAF, explores one possible route around the pesky problem of the sun not shining all the time – space-based solar power (SBSP). Under this approach, huge arrays of solar panels would be put into space, and “beam” the energy down to earth. The panels would be bombarded by solar energy without interruption (there is no nighttime in space), and the solar radiation would be 36% stronger to boot. That energy could then provide solar energy 24 hours a day on Earth.¶ The solar “satellites” could also serve markets that span vast distances. For instance, Garretson says, “a single satellite south of Baja California could service markets across most of North and South America; a satellite over the Indian Ocean could service markets as far apart as Africa and Indonesia, and from Diego Garcia to as far north as Russia.” This is SBSP’s ‘killer app’: it can provide on-demand energy to anywhere in the world. There are obvious military applications for this – imagine forward-deployed bases that did not require resupply routes because they were powered by energy beamed down from space.¶ Despite the promise, at first blush SBSP would appear to be an unimaginable engineering feat. Indeed it sounds like science-fiction. A “multi-gigawatt” solar system would need to be several kilometers in surface area, requiring hundreds of space launches to get the material into space. To put that into context, the U.S. launched only 18 rockets into space last year.

### at: launches inev

#### Indian space launch services just had a watershed year – it’s becoming a global leader because of its new launch vehicle

**Rao, 13** – full time professional writer specializing in space technology and aeronautics. (Radhakrishna, “The Indian Space Programme in 2012: A Review” 1/2, Institute for Defense Studies and Analysis,<http://www.idsa.in/idsacomments/TheIndianSpaceProgrammein2012_rrao_020113>)

By all means, 2012 can be considered a watershed year for the Indian space programme. The programme had begun modestly in November 1963 with the launch of a 9-kg sounding rocket from a modest facility in the fishing hamlet of Thumba on the outskirts of Thiruvananthapuram. 2012 saw the 100th space mission of the Indian Space Research Organisation (ISRO). On September 9, 2012, the four stage workhorse PSLV (Polar Satellite Launch Vehicle) orbited the 720-kg French remote sensing satellite Spot-6 along with the 15-kg Japanese Proiteres probe as a piggy back payload on commercial terms, and in the process helped ISRO complete the saga of a “space century”. The significance of the mission lay in the fact that the PSLV, considered a highly reliable space vehicle, launched the heaviest ever satellite of an international customer on commercial terms.

The PSLV has so far launched 29 satellites for international customers on commercial terms. Its versatility lies in the fact that it can launch satellites into a variety of orbits. But then ISRO’s continued dependence on a single operational launch vehicle in the form of the PSLV implies that heavier class home grown INSAT/GSAT series of communications satellites are hoisted into space by means of procured launch services. Not surprisingly then the 3,400-kg GSAT-10 satellite carrying 30 communications transponders and a payload designed to support the Gagan satellite based, civilian aircraft navigation and management system was launched by the Araine-5 vehicle in September 2012. The continued dependence on Ariane-5 for deploying the heavier class Indian communications satellites not only implies a huge foreign exchange outgo but also makes for a far from sound strategic approach. For, in the context of the rapidly shifting global geopolitical dynamics, the timely accessibility to a procured launch service could become a difficult and challenging proposition in the years ahead.

### democracy

#### Expanding India’s economy and soft power is vital to checking the Chinese model of development and spurring global democracy

**Sheridan, 06** – contributing editor of the National Interest and foreign editor of the Australian (Greg, “East meets East: the Sino-Indian rivalry.”, The National Interest, November, <http://www.accessmylibrary.com/coms2/summary_0286-30408863_ITM>)

In other words, China opposes the emergence of Indian power. Indeed, China has played its diplomatic hand brilliantly, getting the world to accept its own estimation of itself (an emerging great power), while thwarting any such projected status for India. Objectively, as the old Marxists might have said, Indian power contradicts Chinese power.   America and China, meanwhile, are rightly seen to be in a contest for influence, especially in northeast Asia and Southeast Asia. China does enjoy a species of soft power, but it lacks the soft power of idealism or cultural attractiveness. It does have the soft power of money. China has learned to astutely use business communities throughout Asia to leverage financial interest of those communities in China. And Chinese diplomacy has become more professional and effective. The Chinese are exceptionally good at flattery, as any "old friend of China" who has ever been a guest at Beijing's Great Hall of the People can attest. But no one is seriously attracted to the Chinese system on idealistic grounds. So Chinese soft power, based on money, is strong but limited.   What about Indian soft power? Indian soft power based on money will grow as the Indian economy grows. In 2005 and 2006, India hit the Chinese growth rate of 8 percent. China will probably continue to grow faster than India for some time. But unless it messes things up, India should grow fast for a lot longer than China, partly because its population is so much younger. If the Indian economic development model works, it could eventually catch China, though that is a long way off.   India has a great presence in the Western mind. Millions of Westerners have read Indian novels in English. This is not true of Chinese novels. Indian movies, which are popular all over Asia, are starting to penetrate Western consciousness.   Indeed, India shows (contrary to Chinese arguments) that economic development is compatible with democracy in huge, diverse, multi-racial, poor countries. It is almost impossible therefore to overstate the Western, specifically the American, interest in India's success. As India integrates ever more deeply into Asian structures, its mere presence becomes a standing rebuke to China's human-rights record and political stagnation. As it grows richer, with its natural and distinctive mastery of English, India will penetrate global culture. If truth be told, most Southeast Asian nations define national identity partly on the basis of rejecting Chinese culture, specifically the culture of their Chinese minorities--which has often been a very unpleasant business. Those nations won't feel the same about Indian culture.   India will not need to wage any great crusades for its democracy to become, with Japan, an Asian pole of power countering China. When the Asian tsunami smack on Boxing Day, 2005, the United States chose two allies--Japan and Australia--plus Asia's (and indeed the world's) greatest democracy, India, to join it in responding to the disaster. Some at the UN were peeved that such a group should operate without initial reference to the institution, but the core members of the group had their navies steaming to the crisis areas while the UN was still on holiday.

#### Chinese soft power will crush U.S. hegemony

**Kurlantzick, 05** - a visiting scholar in the Carnegie Endowment’s China Program. Also a special correspondent for The New Republic and a senior correspondent for The American Prospect. (Joshua, The New Republic, “How China is changing Global Democracy”, 6/27, <http://www.cerium.ca/article1267.html>)

At a major Asian security conference this month, Secretary of Defense Donald Rumsfeld was typically blunt. Discussing China’s military modernization, Rumsfeld said that China’s upgrade of its military technology was a threat to countries across Asia. "Since no nation threatens China, one wonders : Why this growing investment ?" Rumsfeld asked.

Unfortunately, he is focused on the wrong problem. China is indeed on the verge of posing a major threat to U.S. power and could potentially dominate parts of the developing world. But the real concern is not that China’s armed forces will challenge the mighty U.S. military, which soon may spend more on defense than the rest of the world combined. No, China’s rising power is reflected in a different way. In late 2003, Australia hosted back-to-back state visits by two world leaders. The first to head down under was George W. Bush, a staunch ally of Australia, which, along with the United Kingdom, was a major provider of non-U.S. troops for the invasions of Iraq and Afghanistan. On arrival, however, Bush was treated like a boorish distant cousin ; his official reception was polite, but barely so. He stayed just 21 hours, and, speaking before the Australian parliament, faced protests outside and inside the chamber, where Green Party senators repeatedly interrupted him with catcalls.

The treatment was far different when Chinese President Hu Jintao arrived for a more extended stay. Though, less than a decade ago, fear of being swamped by Asians was a potent electoral issue in Australia, now Canberra threw open its arms to the Chinese leader. For days, Australia’s business and political elite fêted Hu at lavish receptions. And, at China’s request, Australian lawmakers barred potential irritants—like Tibetan activists—from parliament, as Hu became the first Asian leader to address the Australian legislature, receiving a 20-minute standing ovation. Perhaps this differing treatment shouldn’t have been surprising. Australia’s leaders were simply following their people’s lead. Recent polls suggest that, despite decades of close American-Australian relations, Australians generally have a more favorable view of China than of the United States.

China has also scored diplomatic successes in Latin America, long thought to be within Washington’s sphere of influence. During a highly successful twelve-day Latin America trip, which, like his visit to Australia, coincided with a brief Bush trip to the region that received a cool reception, Hu signed some $30 billion in new investment deals and subtly staked a claim that the United States was failing as the major power in the region. Hu stopped in regional giant Brazil, where President Luiz Inácio Lula da Silva upgraded bilateral trade ties with Beijing and decided to send Brazilian advisers to Beijing to study Chinese economics. During an earlier trip to China, Lula had cooed to Hu : "We want a partnership that integrates our economies and serves as a paradigm for South-South cooperation."

Most important for Beijing, in oil-rich Venezuela, a nation increasingly shunned by the United States—which tacitly condoned a 2002 coup attempt against Venezuelan leader Hugo Chávez—Chinese officials are solidifying an alliance with Caracas while providing Chávez an opportunity to point out Washington’s failures in the region. While Chávez talks of slashing oil deliveries to the United States, he promises Beijing a long-term supply of petroleum. "China is a world power. She doesn’t come here with imperialist airs," announced the Venezuelan leader, leaving the distinction with another world power unsaid. Chávez also plans to send advisers to Iran to help Tehran funnel its oil to Beijing. (Iran has inked deals to supply China with natural gas and to provide the Chinese state oil company, Sinopec, with a stake in one of Iran’s biggest oil fields.)

Beijing’s inroads with Australia and Latin America, two vastly different regions of the world, signify aspects of the same sea change. For the first time in centuries, China is becoming an international power, a nation with global foreign policy ambitions. In fact, China may become the first nation since the fall of the Soviet Union that could seriously challenge the United States for control of the international system.

**Democracies won’t go to war with each other – public constraint means accountability and slow mobilization**

**Rosato 3** – Assistant Professor of Political Science at the University of Notre Dame (Sebastian, "The Flawed Logic of Democratic Peace Theory" The American Political Science Review, Vol. 97, Iss. 4; pp. 585-603)

According to the institutional logic, democratic institutions and processes make leaders accountable to a wide range of social groups that may, in a variety of circumstances, oppose war. Accountability derives from the fact that political elites want to remain in office, that there are opposition parties ready to capitalize on unpopular policies, and that there are regular opportunities for democratic publics to remove elites who have not acted in their best interests. Moreover, several features of democracies, such as freedom of speech and open political processes, make it fairly easy for voters to rate a government's performance. In short, monitoring and sanctioning democratic leaders is a relatively straightforward matter (e.g., Lake 1992, 25-26; Owen 1997, 41-43; Russett 1993, 38-40). Because they are conscious of their accountability, democratic leaders will only engage in large-scale violence if there is broad popular support for their actions. This support is essential both because they may be removed from office for engaging in an unpopular war and because society as a whole, or subsets of it, can be expected to oppose costly or losing wars. There are several social groups that may need to be mobilized to support a war including the general public, those groups that benefit from an open international economy, opposition political parties, and liberal opinion leaders. The idea that publics generally oppose wars because of the costs they impose can be traced back to Kant's Perpetual Peace and continues to inform democratic peace theorists today (Doyle 1997, 24-25; Russett 1993, 38-39). Another established intellectual tradition argues that economic interdependence creates interest groups that are opposed to war because it imposes costs by disrupting international trade and investment (Doyle 1997, 26-27). Still other scholars have argued that opposition parties can choose to support a government if it is carrying out a popular policy or to oppose it for initiating domestically unpopular policies (Schultz 1998, 831-32). Finally, Owen has focused on the role of liberal opinion leaders in foreign policy decisions. These elites oppose violence against states they consider to be liberal and can expect the general public to share their views in times of crisis (Owen 1997,19,37-39,45-47; see also Mintz and Geva 1993). In short, domestic groups may oppose war because it is costly, because they can gain politically from doing so, or simply because they deem it morally unacceptable. Five causal mechanisms, and therefore five variants of the institutional logic, flow from elite accountability and the need to mobilize social groups for war. Each outlines a different path to peace between democracies. Two of them claim that democracies will often be unwilling to resort to force in an international crisis. According to the public constraint mechanism, this reluctance arises because leaders respond to the general public's aversion to war. The group constraint mechanism is similar; democratic leaders carry out the wishes of antiwar groups. In a crisis involving two democracies, then, the leaders of both states are constrained from engaging in large-scale violence, perceive their counterparts to be similarly constrained, and will be inclined to come to an agreement short of war (e.g., Bueno de Mesquita and Lalman 1992,155-58; Russett 1993, 38-40).4 Two other causal mechanisms focus on the claim that democracies are slow to use force. The slow mobilization mechanism holds that democracies cannot mobilize quickly because persuading the public and potential antiwar groups to support military action is a long and complex process. The surprise attack mechanism shares this insight but also notes that mobilization takes place in the public domain, thereby precluding the possibility of a surprise attack by a democracy. In purely democratic crises, then, both sides will have the time to come to a mutually acceptable agreement and be able to negotiate in good faith without fearing attack (e.g., Russett 1993, 38-10). Finally, the information mechanism suggests that democracies provide information that can avert wars. Because democratic elites are accountable to their citizens and can expect opposition parties to oppose unpopular policies, they will be cautious about deciding to escalate a crisis or commit the country to war. Indeed, they will only select themselves into conflicts if they place a high value on the outcome of those conflicts, if they expect escalation to be popular at home, if there is a good chance that they will emerge victorious, and if they are prepared to fight hard. This sends a clear signal to other parties: If a democracy escalates or stands firm, it is highly resolved. In democratic crises, then, both states will have good information about the resolve of the other party, will be unlikely to misrepresent their own resolve, and will therefore be able to reach a negotiated solution rather than incur the risks and costs associated with the use of force (Bueno de Mesquita et al. 1999, 802-03; Schultz 1998, 840-41; see also Reiter and Stam 1998 and Fearon 1994).

**Democratic peace has been verified universally – democratic initiators either avoid wars or win them**

**Reiter & Stam 9** – Chair of the Department of Political Science at Emory University & Professor of Political Science at the University of Michigan (Dan & Alexander, "Another Skirmish in the Battle over Democracies and War" International Security, Volume 34, Number 2, Fall 2009, pp. 194-204, Project MUSE)

In previous articles and in our 2002 book Democracies at War, we argued that democracies are particularly likely to win their wars. Democratic political institutions provide incentives for elected leaders to launch only short, winnable, low-cost wars, so they may avoid domestic political threats to their hold on power. Democracies tend to win the wars they initiate because democratic leaders generally “select” themselves into winnable wars, and they are more likely to win when they are targeted because their armies fight with better initiative and leadership. Analyzing all interstate wars from 1816 to 1987, we found strong empirical support for our theory.1 Other scholarship has produced findings supportive of our theory. Elsewhere, two different formal game-theoretic models produced the hypothesis that democracies are especially likely to win the wars they initiate.2 The empirical results generated to test these and related hypotheses have withstood challenges to data selection and research design.3 Using data sets and research designs different from ours, other scholars have uncovered empirical patterns consistent with our theory that democracies are especially likely to win the crises they initiate,4 that wars and crises are shorter when democracies and democratic initiators are involved, and that democracies become increasingly likely to initiate wars as their likelihood of victory increases.5 H.E. Goemans’s recent empirical work exploring the relationship among conflict outcome, regime type, and the postwar fate of leaders confirms our theory, noting that his main result “now offers empirical support for some of these theories [of international conflict] (Bueno de Mesquita et al. 1999, 2003; Reiter and Stam 2002).”6 And, the long-established democratic peace has been explained using our theoretical assumption that variations in domestic political institutions create variations in conflict behavior.7 Even the research designs of our critics, trivially adjusted, generate supportive results for our theory.8 Lastly, in recent work, we have extended the data set forward to 2001 and confirmed our earlier results. Notably, in the 1988–2001 period, democratic initiators won five interstate wars, and tied or lost none.9

#### Indian launch services are revitalizing its economy

**Asia Times, 07** (Raja M, “India's space sector starts a price war” 3/31, <http://www.atimes.com/atimes/South_Asia/IC31Df04.html>)

MUMBAI - With the space industry emerging as the next economic frontier to be explored, India's scientists aim to propel the South Asian country into stratospheric heights of profitability in a market dominated by the US, Russia, Europe and China. The key to success, they believe, is cutting costs.

More than 60% of global satellite revenues now come from consumer-based video, radio and Internet services, and the 24-year-old satellite business journal SatNew says about 104 satellites launches are planned between now and 2008.

Antrix Corp, the marketing arm of Indian Space Research Organization (ISRO) satellite data products, has cornered 20% of the global satellite imaging business, ISRO sources told Asia Times Online.

Antrix has an annual sales turnover of US$68 million, mostly marketing transponder capacity for satellite TV, Internet and telecommunications. Antrix sells transponder capacity (transponders receive signals, translate, amplify their frequency and transmit them back to Earth) for $1 million per client a year.

The ISRO now plans to cut the cost of launch vehicles, including working to use purified kerosene as rocket fuel just as Russia and the US have been doing. Rockets swallow many tonnes of rocket fuel, which currently costs India $46 per kilogram. With purified kerosene, costs plummet to less than 50 cents per kilogram.

Much of India's ability to cut technology costs arose from the necessity of having to find home-grown solutions when the United States and European country’s imposed sanctions after India first detonated a nuclear device in 1974. The ISRO had to reinvent technologies it could no longer buy and, ironically, those technologies are now giving European and US agencies a run for their money.

S Krishnamurthy, a director at the ISRO headquarters in Bangalore, said the focus on self-reliance and the low cost of highly talented workers give India an edge over other countries.

#### India’s economic growth prevents Indo-Pak conflict

**Business Week, 5** (“India and Pakistan: A Peace Payoff; If the two counties can continue on the road to friendly relations, they’ll reap huge benefits both economically and politically” April 20, 2005, <http://www.businessweek.com/investor/content/apr2005/pi20050420_1741_pi076.htm>)

For both India and Pakistan, the economic and political imperatives for achieving lasting peace now appear to be stronger than ever. The cold war era, when India and Pakistan were both firmly ensconced in their respective superpower camps, provided obstacles and no incentive for rapprochement. In the decade that followed the cold war's end, both countries were mired in domestic political strife, while their largely state-run and inefficient economies were stuck in a low-growth rut.   
In Pakistan, the current leadership has displayed a great deal of pragmatism in the conduct of both economic policy and its external political relations. This strongly suggests that achieving peace with India is part of its strategy aimed at maintaining and accelerating Pakistan's economic success and its international political ascendancy.

§ Marked 12:02 § Moreover, dabbling in unconventional warfare against India through the support of separatist groups in Kashmir and India after the September 11, 2001, terrorist attacks has become much less tenable and worthwhile. This, together with the disparate conventional military capability of the two neighboring states, increases Pakistan's incentive for a peaceful and permanent normalization of relations.

On the economic front, India's accomplishments as a rapidly growing and modernizing economy, and its growing international recognition as a globally significant economic powerhouse in the making, are also certain to be getting attention by the Pakistani leadership. Potential benefits from normalized relations with India would, therefore, include the prospect of economic cooperation that could boost Pakistan's long-term economic prosperity and security. This contrasts with Pakistan's other neighbors -- neither the theocracy-ruled and internationally isolated Iran, nor Afghanistan with its medieval economy mired in tribalism and warfare, offer the prospect of such cooperation.   
Over the years, the relationship between the two nations has seen many false starts, when peace overtures and apparent thawing quickly unraveled, leading to a return to hostility and the implied threat of a wider conflict. Will it be different this time?   
ALTERED LANDSCAPE.  Although the peace initiative appears to have both public support and political will in each camp, nationalist and religious zealots on both sides will pressure their respective governments to maintain a hard-line stance toward the other. This could increase if governments are perceived to compromise on Kashmir -- a highly emotional issue in both countries.   
Resolution of Kashmir's status is therefore a necessary condition for a full-fledged peace accord, which, given the complexities and seemingly intractable differences, may take years to materialize. Nevertheless, a discernible pragmatic bent on both sides suggests that India and Pakistan will increasingly opt for the rewards offered by cooperation and trade, even while negotiators labor over the details of a final settlement for Kashmir.   
The recent changes in the economic dynamics of both countries, together with a radically altered geopolitical landscape over the past 15 years, make for considerably stronger peace imperatives than before, with potential gains from success larger than ever. To the extent that it's this recognition that underlies the current rapprochement, the chances of success would appear better than in previous attempts at peace.

## 1nr

### AT: We Meet

#### Production of electricity occurs in space – not on the ground – that is simply transmission

The Green Age (alternative energy information organization) no date “Solar Energy from Space” http://www.thegreenage.co.uk/greenfuture/future-power/solar-energy-from-space

Space Based Solar Power captures sunlight in Orbit where it is constant and stronger than on Earth, this then gets converted to coherent radiation and beamed down to a receiver on Earth. The Typical design for this would be a satellite sitting in geostationary orbit with kilometres2 of photovoltaic arrays situated either side capturing the sunlight producing the electricity; this would then be converted to radio frequencies that are best suited to atmospheric transmission and beamed down to a reference signal on earth, where the beam would picked up by a rectifying antenna and converted into electricity for the grid, delivering approx 5-10GW of electrical power to the grid.

#### Specifically – SPS-ALPHA would consist of simply of tons of photovoltaic cells

George Dvorsky (serves as Chair of the IEET (Institute for Emerging Ethics and Technology) Board of Directors and also heads our Rights of Non-Human Persons program) April 2012 “Beaming Solar Power to Earth with Satellites” http://ieet.org/index.php/IEET/more/dvorsky20120419

There’s no question that we need to seriously consider harvesting the sun’s energy in space with massive solar panels. The big question, however, is how to get all that energy back to Earth.NASA believes they have found the answer: Power-beaming solar-power satellites. It’s a plan that was developed by John Mankins, leader of the first NASA solar-power-satellite development team in the 90s. He calls his proposed project SPS-ALPHA, which stands for Solar Power Satellite via Arbitrarily Large PHased Array. Mankins claims that it’s the “first practical solar-power satellite concept” that uses a novel “biomimetic” approach. This project would make possible the construction of huge platforms from tens of thousands of small elements that can deliver remotely and affordably tens to thousands of megawatts using wireless power transmission to markets on Earth, as well as missions in space. It would do this by using a large array of individually controlled thin-film mirrors, outfitted on the curved surface of a satellite. These movable mirrors would intercept and redirect incoming sunlight toward photovoltaic cells affixed to the backside of the solar power satellite’s large array.

#### Those PV cells produce electricity DIRECTLY on the satellite - not after it is transmitted to earth

US Department of Energy 2013 “Photovoltaic Cells - electricity from sunlight” http://www.dasolar.com/solar-energy/photovoltaic-cells

What are photovoltaic cells?

Photovoltaic cells produce electricity directly from sunlight. Photovoltaic cells are also called PV cells or solar cells. Many PV cells are used in remote locations not connected to the electric grid., solar lights, and lighted road signs. Photovoltaic cells comprise the main component in solar panels and are also used to power watches, calculators How do photovoltaic cells work? When sunlight strikes a solar cell, electrons are knocked loose. They move toward the treated front surface. An electron imbalance is created between the front and the back. When a connector, like a wire, joins the two surfaces a current of electricity occurs between the negative and positive sides. These individual solar cells can be arranged together in a PV module and modules can be grouped together in an array. Some arrays are set on special tracking devices to follow sunlight all day long.

### A2 Production Counter Interp

#### production is extraction of the resource, consumption is use

**Ristinen**, professor of physics – University of Colorado, and Kraushaar, professor of physics – University of Colorado, **‘99**

(Robert A. and Jack J., Energy and the environment, p. 21)

The history of consumption and product of energy in the United States since 1950 is shown in Figure 1.8. In this figure, and elsewhere in this text, energy *production* refers to the mining of coal and the bringing of oil and natural gas to the earth’s surface, or to the making of useful energy by nuclear power, hydroelectric power, geothermal power, biomass fuel, solar collectors, and other means. **Energy *consumption* occurs when the fossil fuel is burned or when energy is put to use by the consumer.**

#### Voter for limits—secondary production is a limitless category

Kim **Woodard** (Research Assistant at the Resource Systems Institute of the East-West Center, Chairman and CEO of Javelin Investments) **1980** “The International Energy Relations of China” p. 457

Secondary energy production can most easily be defined as the conversion of one energy fuel to another. As such, it is a catch-all category that can be used to provide a cluster of statistical energy production series that do not easily fall into either primary production or energy consumption categories. The number and variety of secondary energy production statistics could be multiplied indefinitely by an ever sharper differentiation of substages in the flow of energy commodities through society. I have chosen co include just a few forms of secondary energy production in this analysis—coke production, thermal electric power generation, total electric power generation, total refined petroleum production, the differentiated production of petroleum fuels, plant use of energy in energy production, and the use of hydrocarbons in the production of petrochemical and fertilizer feedstocks. These were statistics that were available for the Chinese case or could be generated by inference from primary energy data and a few oversimplified assumptions. All the secondary energy production statistics presented in this section were generated by the computer and then rounded to a reasonable level of approximation. All the statistics presented for various forms of secondary energy production are general estimates, and none have been tested directly against whatever data exist in the Chinese press. Validation of the statistics would require separate in-depth analysis of each secondary energy production industry—a task far beyond the means of this book. These statistics, therefore, should be taken as a point of reference, not the final word.

#### Precision—our definition comes prior to their offense

Sara **Øvergaard** (Senior Executive Officer in the Department on Energy Statistics at Statistics Norway) September **2008** “Issue paper: Definition of primary and secondary energy” <http://unstats.un.org/unsd/envaccounting/londongroup/meeting13/LG13_12a.pdf>

The ability to separate primary and secondary energy is important in energy statistics. The Energy Balance is set up to record the flow of new energy entering the system of national energy supply, its transformation and losses until end use. To avoid double counting, it is important to be able to separate new energy entering the system, (primary) and the energy that is transformed within the system (secondary). Internationally agreed definitions on primary and secondary energy are therefore important in order to compare Energy Balances. A consistent differentiation between primary and secondary energy is also useful in energy planning when developing long-range policies and for energy analysts who are concerned with broader energy or environmental issues, such as conversion losses, transmission losses, distribution, energy efficiency measures and carbon emissions from energy sources. When defining primary and secondary energy, it is important that the definition is operational and founded on the laws of physics. The definitions must be operational, meaning that it should be helpful for statisticians enabling them to make a clear and consistent division between primary and secondary energy based on information about the sources that the energy is embodied in and the processes that it has been part of. The definition of primary and secondary energy should be founded on physics, and not on the ability of statisticians to measure or record it. For example, in the OECD/IEA/Eurostat, Energy Statistics Manual2, the major difference between the Eurostat and the IEA Energy Balance format lies in the presentation of the production of primary and secondary fuels. Statisticians can for example due to measurement problems choose to assume that the actual mechanical energy taken from a hydro source is equal to the electric generated energy, but this should not influence the fact that hydro is a primary energy source, and that the electricity produced from this source is secondary energy.

### at: solar affs

#### 1NC Dvorsky says SPS creates a transmission of “solar power” while IN SPACE, but it takes the form of solar energy while on Earth – the inclusion of solar energy is limitless and includes any possible renewable – solar power must occur in the US not energy -- accesses an external precision impact, because conflation of the terms destroys core resolutional meaning – this proves we maintain solar AFF’s on the topic

**Sklar, ‘7** founder and president of The Stella Group, Ltd., in Washington, DC, is the Chair of the Steering Committee of the Sustainable Energy Coalition and serves on the Boards of Directors of the Sustainable Buildings Industry Council, the Business Council for Sustainable Energy, and the Renewable Energy Policy Project. The Stella Group, Ltd., a strategic marketing and policy firm for clean distributed energy users and companies using renewable energy (Scott Sklar, 23 October 2007, “What’s the Difference Between Solar Energy and Solar Power?” http://www.renewableenergyworld.com/rea/news/article/2007/10/whats-the-difference-between-solar-energy-and-solar-power-50358)//CC

Lee, this is a question I get often, and believe it is worth addressing. Solar "power" usually means converting the sun's rays (photons) to electricity. The solar technologies could be photovoltaics, or the various concentrating thermal technologies: solar troughs, solar dish/engines, and solar power towers. Solar "energy" is a more generic term, meaning any technology that converts the sun's energy into a form of energy—so that includes the aforementioned solar power technologies, but also solar thermal for water heating, space heating and cooling, and industrial process heat. Solar energy includes solar daylighting and even passive solar that uses building orientation, design and materials to heat and cool buildings. Now in the early 1980's, I was Political Director of the Solar Lobby, formed by the big nine national environmental groups, that embraced all solar technologies—which we viewed as wind, hydropower, and biomass, along with the long list of traditional solar conversion technologies. The thesis, which is correct, is that the sun contributes to growing plants, wind regimes, and evaporation and rain (hydropower), so that all the renewables are part of the solar family. Now, of course, most would argue that geothermal, and tidal and wave (effected by the gravitational force of the moon) are not solar, but we included these technologies as well.

#### AND, contextual ev proves the “power” portion of the res isn’t done in SPACE, not the US

**Ramos 2k** – US Air Force Major, Thesis submitted for the AIR COMMAND AND STAFF COLL MAXWELL Air Force Base (Kim, “Solar Power Constellations: Implications for the United States Air Force,” April, <http://handle.dtic.mil/100.2/ADA394928>)

Another project, which would benefit from integration with a solar power satellite, is a device, which would beam RF power to a particular geographic location to blind or disable any unprotected ground communications, radar, optical, and infrared sensors.30 As with the laser and other directed energy applications, the limiting factor right now is generating enough power in space to energize the RF beam.

### Debris

**Solar storms are an alt cause and solve**

**Clark 4/5/12** (Stephen Clark, Spaceflight Now, “Near-Misses Between Space Station and Debris on the Rise,” http://www.spaceflightnow.com/news/n1204/05spacedebris/, Sawyer)

NASA says increasing solar activity, which balloons the atmosphere and creates more drag, is helping rid low-altitude orbital zones of some debris.

**Zero risk of this scenario**

**Gallagher** **10** (Center for International and Security Studies at Maryland, University of Maryland, Nancy, Space Governance and International Cooperation, Astropolitics, Volume 8 Issue 2, May 2010)

In sum, there are good reasons for conceptualizing space cooperation as managing a global commons so that a growing number of individual space actors can continue to use it in a safe, equitable, and sustainable manner, but there are also major reasons why framing the need for greater space cooperation in this way is unlikely to produce international agreements that make a major difference in outcomes. Interference from overcrowding and accidents caused by space debris have so far been low probability, low consequence events. This makes it hard to convince policy makers outside of the space community that they should devote significant time, money, and political capital to get more rapid international agreement on, and more widespread compliance with, stricter rules, wider information sharing, and better managerial processes. With ongoing wars and the global economic crisis, a 1-in-1,000 chance of a given satellite colliding with a chunk of space debris during a ten-year functional lifetime does not sound too bad.20 Debris cascades could dramatically increase the future risks and costs of space operations, but that would still pale by comparison with the consequences of global warming or rampant nuclear proliferation.

### SSA

**Status quo solves**

**Lee 3/9/12** (Kevin Lee, PCWorld, Lockheed Martin Developsa 'Space Fence' to Track Orbiting Space Trash,” http://www.pcworld.com/article/251582/lockheed\_martin\_develops\_a\_space\_fence\_to\_track\_orbiting\_space\_trash.html, Sawyer)

Lockheed’s ground-based radar system can detect any space object that's larger than 0.8 inches across. So far the system has detected over 20,000 objects. The radar also catalogs, tracks, and predicts the course of each piece of space debris. The radar incorporates the Solid-State S-band, which pings at a higher wavelength frequency than the VHF band used by the Air Force Space Surveillance System. Lockheed’s radar allows them to detect much smaller--and many more--objects in space than other systems. The eventual goal of the Space Fence project is to replace the Air Force’s aging system that has been in place since 1961. The scientists say the system could dramatically improve our “space situational awareness.” The prototype radar would also prove to be extremely useful in protecting the International Space Station and our other working satellites from collisions long before they even happen.

**They don’t solve – new process takes too long**

**Schwartz 10** (General Norty Schwartz, US Air Force, “Air Force Association, Orlando: Space, Cyberspace, and National Security,” February 18, 2010, http://www.af.mil/shared/media/document/AFD-100219-034.pdf, Sawyer)

To enhance our space situational awareness, we must continue to nurture our resurgence in space intelligence analytical and collection capabilities. This process will take time, as decades of knowledge and experience are imparted from senior analysts to new ones, and new technical ways and means of collection are developed, managed, and implemented. This enhanced situational awareness not only will provide our Nation with the ability to evaluate our adversaries’ space orders of battle and clarify our understanding of their intent, but also to detect, mitigate, and otherwise respond to threats to our space assets.

### Navy

**The US is so far ahead that this impact is a joke**

**Work 09** (Robert, VP of Strategic Studies @ Center for Strategic and Budgetary Assessments, “Strategy for the Long Haul: the US Navy Charting A Course for Tomorrow’s Fleet”, http://www.csbaonline.org/4Publications/PubLibrary/R.20090217.The\_US\_Navy\_Charti/R.20090217.The\_US\_Navy\_Charti.pdf)

On August 1, 2008, the TSBF numbered 280 ships of all types (see Figure One).3 Predictably, naval advocates fretted that the smaller fleet posed a great risk to US national security. For example, Seth Cropsey, a Deputy Undersecretary of the Navy in the Reagan and George H. W. Bush administrations, cautioned that, “Without intending it, US policy is verging toward unilateral naval disarmament.”4 He went on to say: The Navy’s focus is [unclear]. Its [280] combat ships — a number that House Armed Services Committee Chairman Ike Skelton called “shocking” — comprise a force that is less than half the size achieved during the Reagan years . . . The last time the US possessed so small a fleet was sometime between December 1916 and April 1917, on the eve of the nation’s entry into World War I. While technically true, these dire comments are misleading. Of the many ways to gauge US naval power, comparing the size of the current US battle force to that of past US fleets is the least useful. Past TSBFs are reflections of different strategic environments, federal budgets, national grand strategies, and stages of technological development. They also reflect the state of the contemporary global naval competition. In 1916, although the TSBF numbered only 245 ships of all types, the 36 battleships of the Navy’s battle line placed it second among world navies behind the British Royal Navy. Despite having “only” 245 ships, it could safely assume it would never have to fight the Royal Navy, and be relatively confident that it could fight and defeat any other navy in the world. During the 1980s, even as it grew to a post-Vietnam high of nearly 600 vessels, the Navy was fighting off a concerted effort by the Soviet Navy to knock it out of the top spot.5 In other words, whether today’s TSBF is as big as the US fleets in 1916 or 1987 is utterly irrelevant. Far more important is the answer to the following question: how does the US Navy stack up against its potential contemporary competitors? And the answer to this question paints a very different picture than comparing today’s TSBF with that of past US fleets. SECOND TO NONE The first true indicator of US naval dominance comes from comparing the size of the US battle force with other world navies. What alarmists over fleet size fail to mention is that although the US TSBF is the smallest it has been in over ninety years, so too are the rest of the world’s navies.6 At the height of its naval dominance, Great Britain strove to achieve at least a “two-navy standard.” That is, the Royal Navy aimed to maintain a fleet and battle line that was as large as the combined fleets of the two closest naval powers. Today, counting those ships that can perform naval fire and maneuver in distant theaters — aviation platforms of all types, tactical submarines (nuclear and diesel-electric attack boats and conventional guided-missile submarines), and surface combatants and amphibious ships with full load displacements greater than 2,000 tons7 — the next two largest contemporary navies belong to Russia and the People’s Republic of China (PRC). Together, they operate a total of 215 warships of all types. The US Navy alone operates 203 such warships, very close to, but not quite, a two-navy standard.8 However, when factoring in a second important indicator of naval power — aggregate fleet displacement (tonnage) — the US Navy enjoys considerably more than a two-navy standard. As naval analyst Geoffrey Till explains, “[t]here is a rough correlation between the ambitions of a navy and the size and individual fighting capacity of its main units, provided they are properly maintained and manned.”9 Therefore, full load displacements and aggregate fleet warship displacements are the best proxies available to measure a ship’s and a fleet’s overall combat capability, respectively. Accordingly, both are useful measures for sizing up the contemporary global hierarchy of naval competitors.10 When considering aggregate fleet displacements, the US Navy’s overwhelming advantage in combat capability is readily apparent. Besides the United States, there are only twenty navies in the world that operate fleets with aggregate displacements of 50,000 tons or more. In order of fleet displacement (largest to smallest), these navies are operated by: Russia, the PRC, Japan, the United Kingdom, France, India, Taiwan, Italy, Indonesia, Spain, South Korea, Brazil, Turkey, Australia, Greece, Canada, Germany, the Netherlands, Peru, and Singapore. Together, these twenty navies operate a total of 719 ships with a combined displacement of 3,632,270 tons.11 In comparison, the combined displacement of the US Navy’s 203 fighting warships totals 3,121,014 tons — which exceeds the total tonnage of warships operated by the next thirteen navies combined. In other words, in terms of overall fleet combat capability, the US Navy enjoys a thirteen-navy standard. However, it is important to note that of the twenty countries discussed above, eighteen are formal US allies (Australia, Canada, France, Germany, Greece, Italy, Japan, the Netherlands, South Korea, Spain, Turkey, and the United Kingdom), governments friendly to the United States, (Peru, Brazil, Indonesia, and Singapore), or emerging strategic partners (India). Moreover, all of these nations are either full or partial democracies. The likelihood of the United States ever finding itself in a war or naval confrontation with any of these countries is extremely remote. Indeed, if anything, during times of crisis the US Navy can normally count on receiving important naval contributions from some or all of these nations. At the turn of the twentieth century, the officers of the British Royal Navy concluded that they would never again fight the US Navy, and could remove its rapidly expanding fleet from calculations over the minimal two-navy standard. Similarly, eight years after the turn of the twenty-first century, the US can confidently exclude these eighteen navies from its naval force planning calculations. This is the implicit message of the Navy’s recently published Cooperative Strategy for 21st Century Seapower, which seeks to foster and sustain cooperative maritime relationships with more international partners.12

### Oil Spills

**Oceans resilient**

**Kennedy 2** (Victor, Coastal and Marine Ecosystems and Global Climate Change, http://www.pewclimate.org/projects/marine.cfm)

There is evidence that marine organisms and ecosystems are resilient to environmental change. Steele (1991) hypothesized that the biological components of marine systems are tightly coupled to physical factors, allowing them to respond quickly to rapid environmental change and thus rendering them ecologically adaptable. Some species also have wide genetic variability throughout their range, which may allow for adaptation to climate change.

# quarters neg v. wake lm

## 1nc

### POL

#### Hagel will ONLY get through because of political capital—the plan changes this

Michael Falcone (writer for ABC News) 1/7, 2013 “Cabinet Shakeup: No Such Thing As A ‘Slam Dunk’ (The Note)” http://abcnews.go.com/blogs/politics/2013/01/cabinet-shakeup-no-such-thing-as-a-slam-dunk-the-note/

But as ABC Chief White House Correspondent Jon Karl notes today, the confirmation of Hagel, a former Republican senator, “will be no slam dunk”: “Senate Democrats tell me there is no guarantee Hagel will win confirmation and that, as of right now, there are enough Democratic Senators with serious concerns about Hagel to put him below 50 votes. The bottom line: He may ultimately win confirmation, but not before a bloody fight in the Senate. On the plus side, Hagel is a decorated Vietnam veteran and a former Republican Senator who’s views on military issues closely match the president’s views. But he has already come under withering criticism from across the political spectrum. Among other things, he has come under fire for controversial comments on Israel (in 2008, he referred to Israel’s US supporters as ‘the Jewish lobby’), his opposition to some sanctions against Iran, and his suggestion, also in 2008, that the U.S. should negotiate with Hamas.” Time Magazine’s Mark Halperin had a similar prediction: “If Hagel has a good confirmation sherpa and performs well in his courtesy calls and at his hearings, he will likely be confirmed. But/and at a pretty high cost. Expect a LOT of people to want to testify against him. And don’t rule out a filibuster of this nomination, which would, obviously, change the math.” http://ti.me/VvwfU0 More on the rough road ahead for Hagel from ABC’s Martha Raddatz on”Good Morning America” today. WATCH: http://abcn.ws/VNTZBZ NOTED! ABC’s RICK KLEIN: It’s getting crowded in here. One consequence of the un-grand bargain is that Washington will be fighting fiscal battles again early this year — then likely later, too. The result is not just a feeling of déjà vu but of suffocation. Republicans and any coalition that wants to slow President Obama’s agenda — on immigration, gun control, energy policy**,** what have you — has the perfect way to do so now, perhaps indefinitely. “None of these issues, I think, will have the kind of priority that spending and debt are going to have over the next two or three months,” Senate Minority Leader Mitch McConnell said on ABC’s “This Week” yesterday. ABC’s AMY WALTER: For all the hand wringing about upcoming fights between the White House and Congress over Chuck Hagel, the debt ceiling and the sequester, a reminder that the two branches were designed to challenge each other. To be sure, this is a frustrating process— and one that has resulted in less than ideal outcomes. Voters say they like the idea of divided government, but they don’t like the reality of it. “THIS WEEK” REWIND: MCCONNELL: THE TAX ISSUE IS FINISHED. As President Obama and Republicans slowly approach the next round of deficit-reduction talks, Senate Minority Leader Mitch McConnell drew a line in the sand, in his interview with ABC’s George Stephanopoulos: no more tax increases. McConnell: “The tax issue is finished, over, completed. That’s behind us. Now the question is, what are we going to do about the biggest problem confronting our country and our future? And that’s our spending addiction. It’s time to confront it. The president surely knows that. I mean, he has mentioned it both publicly and privately. The time to confront it is now.” http://abcn.ws/Xbz4uz HEITKAMP: GUNG-CONTROL PROPOSALS ‘WAY IN EXTREME.’ After The Washington Post reported that Vice President Biden’s working group will press a broad gun-control agenday, newly elected Democratic Sen. Heidi Heitkamp, N.D., told ABC’s George Stephanopoulos those proposals would go to far. Heitkamp: “Let’s start addressing the problem. And to me, one of the issues that I think comes — screams out of this is the issue of mental health and the care for the mentally ill in our country, especially the dangerously mentally ill. And so we need to have a broad discussion before we start talking about gun control. … I think you need to put everything on the table, but what I hear from the administration — and if the Washington Post is to be believed — that’s way — way in extreme of what I think is necessary or even should be talked about. And it’s not going to pass.” GRETA VAN SUSTEREN GOES ON THE RECORD (WITH ABC NEWS): Fox News’ Greta Van Susteren has interviewed some of the biggest names in U.S. politics on her show, “On The Record,” but you’ll never guess who her dream guest dream political guest is. Van Susteren, who appeared on the “This Week” roundtable Sunday, answered viewer questions from Facebook and Twitter for an “All Politics is Social” web exclusive hosted by ABC’s Kaye Foley. About that dream guest, here’s her answer: “Bo, the first dog. I love animals. I’d love to be on Animal Planet. On Animal Planet you aren’t dealing with death and destruction and people fighting with each other all the time. To the extent that Bo is a part of politics, I’d love to interview Bo. Plus, I love the fact that he looks like he’s wearing white knee socks. Bo is my favorite.” WATCH the full interview: http://abcn.ws/13bVdfF THE BUZZ: with ABC’s Chris Good (@c\_good) SCOTUS RETURNS: GAY MARRIAGE, AFFIRMATIVE ACTION, VOTING RIGHTS. The Supreme Court returns to the bench today, and ABC’s Ariane de Vogue reports: The justices will hear two potentially blockbuster cases in March concerning gay marriage. One of the cases–Hollingsworth v. Perry–addresses whether there is a fundamental right to same-sex marriage. The other–Windsor v. United States–deals with the federal law that defines marriage as between a man and a woman. In both cases, the court will hear arguments on potential procedural obstacles that could stop it from getting to the core constitutional questions. The court will also hear a case challenging a key provision of the Voting Rights Act. Section 5 of the law says that certain states with a history of voter discrimination must clear any changes to their election laws with federal officials in Washington. Lawyers for Shelby County, Ala., are challenging the constitutionality of Section 5. The case, called Shelby County v. Holder, will be argued Feb. 27. The day before, the court will hear arguments in Maryland v. King, a case about whether Maryland officials can collect DNA from someone who has been arrested but not convicted of a crime. http://abcn.ws/WD3Fir SANDY AND THE CLIFF: WILL PAUL RYAN’S VOTES HAUNT HIM IN 2016? Paul Ryan voted in favor of the “fiscal cliff” tax deal but against a Hurricane Sandy relief bill that would add $9.7 billion in debt. ABC’s Shushannah Walshe reports on the potential implications for 2016: The two votes four years from now may mean nothing or could haunt Ryan if he decides to run for president in 2016, depending on who is battling for the nomination. The fiscal cliff vote could become an issue, particularly if his opponent is Florida Sen. Marco Rubio who could highlight the fact that Ryan voted for the measure while Rubio voted against it. The Sandy vote could also be resurrected if his rival is New Jersey Gov. Chris Christie who blasted members of his own party this week when Boehner decided not to vote on a $60 billion Sandy relief package after assuring lawmakers from the affected he states he would. … Will Ryan be more vocal on the looming battle to raise the debt ceiling? It will be one to watch. http://abcn.ws/Sb0YZE OBAMA’S VACATION BY THE NUMBERS. With President Obama returning from a nine-day vacation in Hawaii with family and friends, ABC’s Mary Bruce reports: Obama played FIVE rounds of golf with SEVEN different partners, spending roughly THIRTY hours on TWO different courses on Oahu. The president made FIVE early morning trips to the gym at the nearby Marine Base at Kaneohe Bay. … The Obamas ventured out for dinner with friends FOUR times, leaving their Kailua vacation home for gourmet Japanese meals at Nobu and Morimoto … The president interrupted his vacation for SIX days to negotiate the “fiscal cliff” in Washington. All told, he will have spent roughly FORTY hours on Air Force One flying between D.C. and Hawaii. http://abcn.ws/WA0xUx PELOSI: MORE TAXES IN NEXT CLIFF DEAL. The fiscal cliff isn’t quite over, and House Speaker Nancy Pelosi says tax revenues must be on the table as President Obama and congressional Republicans negotiate over how to avert budget sequestration. The Hill’s Mike Lillis reports: “‘In this legislation we had $620 billion, very significant … changing the high-end tax rate to 39.6 percent. But that is not enough on the revenue side,’ Pelosi told CBS’s Bob Schieffer in an interview taped Friday. Without offering many specifics, the California Democrat said she wants to scour the tax code for unnecessary loopholes and ‘unfair’ benefits that help those–either companies or individuals–who don’t need it.” http://bit.ly/WnUi5y CHUCK HAGEL: LET THE SNIPING BEGIN. Rumblings on Capitol Hill, already, are not good. Politico’s Scott Wong and Manu Raju report: “Sen. Lindsey Graham (R-S.C.), an Air Force reservist who serves on the Armed Services Committee that will consider the nod, said Hagel would hold the ‘most antagonistic’ views toward Israel of any defense secretary in U.S. history. … ‘It is a strange signal for the White House to send that they are willing to fight for Hagel but not Rice,’ one Senate Democratic aide said Sunday. ‘Democrats are not currently unified behind Hagel, and it will take some real work by the administration to get them there, if it’s even possible.’ ‘I can’t imagine why [Obama] would choose to burn his political capital on this nomination. For what? There is no constituency for Chuck Hagel,’ one senior GOP aide said. ‘Obama will expend every ounce of political capital he has to get him across the finish line. Dems will hate this.” <http://politi.co/VFMgc7>

#### Plan drains capital

Nature 9 Natural Magazine. “Adieu to nuclear recycling,” July 9, <http://www.nature.com/nature/journal/v460/n7252/full/460152b.html>

¶ Such efforts will be applauded worldwide, but another decision by the Obama administration deserves equal acclaim. On 29 June, the president quietly cancelled a lengthy environmental review that was the first step in allowing the resumption of commercial nuclear reprocessing in the United States. Nuclear reprocessing chemically separates uranium and plutonium from spent nuclear fuel so that it can be reused in specialized reactors. The same technique can be used to purify material for nuclear weapons, and it is partly for that reason that the United States decided to halt reprocessing in the 1970s.¶ ¶ Obama's predecessor, George W. Bush, sought to reverse that decision. He thought that reprocessing could be part of a broader approach that would see used fuel from non-nuclear-weapons states brought to the United States for reprocessing. As part of the Global Nuclear Energy Partnership programme, Bush advocated the construction of a demonstration commercial reprocessing plant, and an environmental review was already under way when Obama came into office.¶ ¶ Such a plant, had the plans been allowed to continue, would have been both costly and counterproductive. Proliferation worries aside, reprocessing is complex, expensive and creates a liquefied stream of highly radioactive waste that is difficult to dispose of. The technology is likely to be needed within the next two decades, so Obama is right in his decision to allow research into ways to improve reprocessing, while constraining the programme to one of basic science.¶ ¶ The decision to halt commercial nuclear recycling sends a clear message that the United States is committed to nuclear non-proliferation. Such decisions, together with diplomacy such as that taking place in Russia, are deliberate and encouraging first steps towards building an international consensus on reducing the threat from nuclear weapons.

#### Hagel is key to soft landing on a litany of critical military transitions—the impact is global conflict

Jessie Daniels (Truman National Security Project Fellow, worked in the US Senate) 1/7, 2013 “Chuck Hagel Nomination: A Look At the Security Threats He Will Face” http://www.policymic.com/articles/21946/chuck-hagel-would-be-a-defense-secretary-for-the-21st-century

As President Obama heads into his second term, and a new cabinet comes into shape, attention now focuses on the leading choice for Secretary of Defense: Chuck Hagel. As the Chairman of the Atlantic Council, and former Nebraska GOP Senator, Hagel certainly has the policy chops and political bona fides to take over the reins from the current Secretary Leon Panetta. The next secretary of defense will immediately be faced with managing American commitments and new priorities. The Pentagon will continue its rebalance — or "pivot" — toward the Asia-Pacific, where the U.S. has already been bolstering its presence in the region. At the same time, the next secretary of defense will preside over a transition in Afghanistan that insiders say appears harder than anticipated — both politically and operationally. Then there's the Middle East at large, which presents a separate set of challenges: Egypt's rocky political transitions, an intransigent Iran, and escalating violence in Syria. Key in managing the U.S. role in each and all of these situations is recognizing the limits of American power and influence. Fortunately, Hagel gets how complex the picture is, and would be committed to ensuring that the U.S. military does not become overextended yet again. America's commitments will also be shaped by Pentagon budget reforms. The Defense Department is scheduled to trim $487 billion in spending over the next decade. If the sequester cuts eventually do go into effect — the fiscal cliff deal only delayed them by two months — the Pentagon will face an additional $500 billion in cuts. If confirmed as the next secretary of defense, Hagel would already come into the position with the mindset that the Defense budget is "bloated." Moreover, his political experience on Capitol Hill would prove useful in guiding the department through reforms that, though necessary, are likely to be highly politicized and contentious. Aside from these near-term challenges, the next secretary of defense will also need to prepare for 21st century threats. Tomorrow's threats could just as easily come from non-state actors or take place in cyberspace. Issues once unconnected to national security — such as the environment — now play critical roles for America's military, as resource insecurity (like water or energy) can escalate the risk of conflict. During his time in the Senate and now at the Atlantic Council, Hagel has been a strategic thinker who understands the interconnectedness of an array of threats. He has demonstrated the ability to understand the terrain of these new battlefields, and would be well-prepared shape the military as it prepares for this new security environment. Considering the overall breadth and depth of his experience, Chuck Hagel would bring many relevant strengths to the table — which is all the more important, since the next Pentagon chief will find a full plate of challenges upon arrival.

### CP

#### The United States federal government should substantially increase its light water small modular reactor funding in the United States.

#### The CP jumpstarts leadership in small modular reactor development

Freed et al 10 Josh, Director of the Third Way Clean Energy Program, Elizabeth Horwitz, Policy Advisor at Third Way’s Clean Energy Program, and Jeremy Ershow, formerly a Policy Advisor at Third Way, September, "Thinking Small On Nuclear Power", content.thirdway.org/publications/340/Third\_Way\_Idea\_Brief\_-\_Thinking\_Small\_On\_Nuclear\_Power.pdf

THE PROBLEM¶ We don’t have sufficient clean energy technologies to meet our baseload electricity and manufacturing energy needs. Currently, 50% of electricity in the United States comes from coal,3 with few clean alternatives for baseload energy. Moreover, almost 100% of the heat that drives manufacturing processes is supplied by fossil fuels,4 and no clean energy option currently exists. Unless new, clean technologies are brought on-line to supply small-scale baseload electricity and industrial process heat, we won’t be able to achieve a comprehensive shift to clean energy.¶ Our baseload clean power options are one-size-fits-all.¶ Nuclear power is the sole carbon-free electricity source that is both scalable and capable of meeting baseload power needs. But the only reactors now on the market are large enough to generate power for 750,000-1.2 million households.5 These reactors work very well for the larger electric utilities that own them, as well as for the small utilities and coops that partner with them, and they enable producers to benefit from the distribution of large amounts of power across the grid.¶ Large reactors are a critical clean energy solution for much of the nation, which is densely populated and has heavy and growing demand for electricity. They are not always the best option for smaller power producers, which provide electricity to over 41 million consumers in the United States, and each serves only several thousand customers.6 Small utilities and military bases do not always have the demand for electricity, the capital, the access to water, or the available land to build a new nuclear power plant. Without another baseload electricity option, these utilities or other electricity producers have little choice but to rely on fossil fuels.¶ We have no clean energy source to supply manufacturing process heat. Manufacturing is a heat-intensive process requiring a lot of generated energy; consider the image of the smelting process used in the steel industry.7 Similar quantities of heat are needed for the production of plastics or other chemical manufacturing, or the forging of molten metal into component parts of automobiles, building structures, and windmills.¶ Yet despite the ubiquity of energy-intensive industries, we currently have no clean energy source deployed that can supply direct heat for industrial processes.¶ Instead, manufacturers are left to choose among fossil fuels which generate high emissions and air pollution and are susceptible to commodity price fluctuations. Such price fluctuations not only deny industry stable or predictable energy costs, they also raise the danger of domestic companies being undercut by foreign competitors whose governments subsidize fossil fuels.¶ THE SOLUTION¶ Help bring small, modular nuclear reactors to market.¶ The imperative of creating more diverse clean energy applications has spawned the design of several small reactor technologies which will enable a wide range of new clean energy uses. Known as SMRs, they vary between 1/20th and 1/4th the size of large reactors.8 There are two streams of development on SMRs—those based on the same concept as existing large light water reactors, and advanced reactors of varying design intended to provide new kinds of capabilities.¶ Light water SMRs have the scale and flexibility to provide a range of amounts of baseload power. They can incrementally expand capacity at an existing power plant or add new capacity at U.S. military installations that need independence from the grid.9 SMRs are financially viable for many utilities, with costs in the hundreds-of-millions of dollars per reactor.10 Because of the power conversion system of these reactors, they can be cost-effectively cooled by air rather than water. As a result, SMRs can supply cheaper baseload clean energy to arid cities in the West, like Denver or Las Vegas.11 And because they can fit into a small structure and be sized to match the capacity of existing electrical infrastructure, SMRs provide a viable path to retrofitting old power plants with clean energy.12 Advanced reactors could open the door to intriguing new possibilities. Some advanced SMRs are being designed to supply heat directly to industrial users, as well as electricity.13 This would enable large manufacturers across industries to replace fossil fuels with clean energy. Micro-reactors could be used in remote locations or under circumstances where a self-sufficient energy source is needed for a limited period of time. Others could convert existing nuclear waste into electricity, dramatically reducing problems of waste storage.14¶ Support commercialization of SMRs near ready for deployment.¶ Several U.S. companies are in the advanced stages of developing small reactors that adapt existing technology to produce smaller amounts of baseload electricity.15 These technologies are nearly ready for deployment. Final decisions about design, siting, and regulatory approval could be made within the next five years.16 The federal government can take several steps to help make this possible.¶ First, economic barriers to entry must be lowered. For first movers, costs of licensing, design and regulatory approval will be comparable to those of the larger reactors because existing regulations have not yet been tailored to suit new designs. As the Nuclear Regulatory Commission (NRC) gains expertise in evaluating SMRs, and as economies of scale develop, these costs will decrease. Until this happens, the Department of Energy’s new cost-sharing program for near-term licensing and deployment of light water SMRs will help reduce some of the financial impact.17[i] The NRC also needs to continue its commitment to allocate sufficient resources and build the expertise necessary to evaluate and license SMRs in a timely fashion.¶ The Department of Energy (DOE) and Department of Defense (DOD) can also prime the market pump by serving as a buyer of first-of-a-kind technologies. This could include deploying SMRs on DOE-owned sites, many of which are already zoned to support nuclear power plants,18 and appropriate DOD facilities in the United States. DOD, the largest single energy consumer in the U.S., comprises 78% of federal energy use, and is the most significant energy consumer in several metropolitan areas.19 DOE should also work closely with the private sector to develop standardized designs, with the goal of achieving demonstration and licensing within a decade.20¶ The potential market for SMRs is global. As we note in “Getting Our Share of Clean Energy Trade,” whichever country emerges as the market leader could dominate a good part of the $6 trillion global energy market.21 The U.S. could seize that mantle and all the jobs and exports that come with it. American reactors could be deployed within a decade domestically22 and go global soon after.

### CP

#### The United States Federal Government should eliminate direct federal funding for high-temperature gas cooled areva prismatic steam cycle reactor energy for energy production in the United States. The United States Federal Government should offer substantial, permanent tax credits for private sector research and development for high-temperature gas cooled areva prismatic steam cycle reactor energy, valued equivalently to the amount of funding that the affirmative provides in their plan. These tax credits should be annually adjusted for inflation, not be limited to first movers, and not be subject to megawatt limitations.

#### Tax credits are sufficient incentives to spur new reactor development

**Gray, 9** (John, “Choosing the Nuclear Option: The Case for a Strong Regulatory Response to Encourage Nuclear Energy Development” 41 Ariz. St. L.J. 315, Spring, lexis)

Furthermore, an effective nuclear energy policy combines these regulatory options with other incentives for the nuclear industry, helping businesses overcome nuclear power's artificially high capital costs. Because capital expenses and obstacles are a major factor in nuclear power's stagnation, further government support would direct energy policy toward nuclear power in the short-term, allowing its long-term cost-effectiveness to flourish. n179 Although the Energy Policy Act of 2005 began this route, authorizing loan guarantees, production tax credits, and private sector investment protection, n180 continued support is required. For example, government tax credits for first-mover plants would create a strong incentive for businesses to be the first to market with new nuclear technology; the initial success would spur additional interest in the industry, encouraging development at an economic price. n181

#### Government demonstrations increase overall costs and inhibit commercialization, incentives for private R&D are superior

**Montgomery, 8** – Vice President of CRA International, directs CRA's Environment Practice. He is an internationally recognized authority in energy and environmental policy and regulation (W. David, “Developing Clean, Innovative Commercial Energy: Will Proposed Federal Subsidies Hurt or Help,” George C. Marshall Institute, 6/13, <http://www.marshall.org/pdf/materials/607.pdf>

This leads me to my conclusion, which is that we need to think about designing direct incentives at the R&D stage. There is really no reason to think about the government doing anything other than putting a price on carbon in order to get those technologies deployed in the market. So let’s take a look at those two ends of the problem. First, let’s talk about deployment and try to distinguish deployment from demonstration. I would argue that **a direct** **government role in** promoting **deployment** of technology for climate purposes is, first, unnecessary, because private investors can expect to capture the rewards of that innovation. The only thing the government needs to do is deal with the primary issue of climate policy, which is putting a price on CO2 emissions, rewarding technologies that have low CO2 emissions, and penalizing technologies that have high CO2 emissions. Then the market can sort it out. What I think we find in policymaking, and I think we have found this for decades, is that funding of large-scale commercial demonstrations really just means the government is picking technology winners and deciding to put billions of dollars into promoting one of them. It is an expedient based on an unwillingness to put in place a broader energy policy that actually deals with the policy problem. So it is working at the end of pushing on the technologies, “pushing on the rope,” if you like, rather than creating a policy which broadly changes the market environment for these policies. The other part, and we can see this very clearly in the analysis we have done of the recent energy bills, is that picking technologies just increases the cost of reducing CO2 emissions. For example, for the electric power sector, we could think about putting a cap on CO2 emissions from electricity generation. It would be better if it is broader, but we could think about doing that. And we could also have policies that require a renewable portfolio standard, for example, we could say that utilities must use a certain amount of what is classified as renewable, basically wind, solar, and biomass. Well, the two most cost-effective ways that are available on a broad scale for reducing greenhouse gas emissions are nuclear power and coal with carbon capture and sequestration, both of which are pushed out of the market by a renewable portfolio standard. Picking those renewable technologies and promoting them separately actually increases the cost of meeting that kind of cap for the utility sector overall.¶ It is this funding of large-scale demonstration projects, with the notion of producing a commercial technology and getting it into the market, where government failures have been most prominent. Everybody should read Linda Cohen and Roger Noll’s book on the pork barrel politics of energy R&D. This is a case where government is necessarily picking winners. The large scale of these projects attracts earmarking and makes the choice of projects something that goes to whomever has the most powerful political backers, rather than anything that has to do with the economics or the science and engineering of developing new technologies. I don’t think I need to go on with this much longer because there was an excellent example in the last couple of weeks. Secretary of Energy Bodman announced that the Department of Energy was going to cancel funding of a huge FutureGen demonstration project for carbon capture and sequestration. His reason was that the costs had been going up, and the private sector participants were unwilling to pay any of those increases in cost. He decided that this was good evidence that the project should not be continued. And he cancelled it. I thought this was a history-making event. This is the first time in my thirty-five years in Washington that a government agency voluntarily canceled a large-scale project, after it was underway, because they found things out that made it proper to cancel it. What happened? Three days later the senator for the state in which that project was going to be built put language into an authorization bill telling DOE it could not cancel the project. I think we have no hope of avoiding potential damages from climate change unless Congress stops doing this. I would say this is the second biggest obstacle to dealing with climate risks. The first biggest obstacle is that China and India, who are the world’s largest contributors of greenhouse gas emissions, are not willing to do anything at this point to reduce their emissions. The second biggest problem is that we need an effective R&D policy that creates new technologies, and if Congress continues with what they have done in the past and what they did with FutureGen, there is no hope of getting it. That is a task for all of you to go back and get to work on! Getting technology off the shelf is the right role for carbon pricing. Putting a price on CO2 emissions sends the right signal to private investors to build a demonstration plant, to put their money into figuring out how to get integrated gasification with combined cycle to work with coal, to do it more cheaply with more availability. There are a lot of things the private sector needs to do. The problem is that unless we have R&D first, the price is going to be much too high because we need the breakthroughs and the basis for new technology for the private sector to work on. The other part of it is that the price that it is going to take to deploy a successful technology is far lower than what it takes to motivate the R&D that will create it. That is the real policy problem that I see investors facing and this gets back to the credibility issue. If a massive amount of private investment by the electric power sector in carbon capture and sequestration or a massive investment by the biotechnology sector produced a biofuel that was not an environmental disaster and could be deployed widely and produce cheaply and efficiently, that would mean government wouldn’t need to put quite so high a price on carbon any more. It would be relatively cheap to achieve carbon goals, and therefore, all of the incentives for government would put a price on carbon that is sufficient to lead that technology to be deployed and will not provide any profits for those who had originally developed it. So we get back to the point that it is really necessary for the government to provide incentives at the R&D stage. And there I would say we clearly need both direct funding for basic science and credible incentives for private sector R&D. I suspect that the scale that we are looking at here is far more than doubling current DOE funding for technology in order to create the kind of breakthroughs that it takes to achieve net zero carbon emissions.

#### Government R&D funding is manipulated politically – it creates incentives to suppress data and this inhibits overall development

**Sutherland and Taylor, 02** - \*professor of law at George Mason University and a consulting economist AND \*\*director of natural resource studies at the Cato Institute. (Ronald and Jerry, “Time to Overhaul Federal Energy R&D,” 2/7, <http://www.cato.org/pubs/pas/pa424.pdf>

The fundamental problem is that selfinterest incentives within government are to add value to government but not to add economic value to taxpayers. Program goals are more likely to be technical than economic, and program managers are technical optimists about their own programs. Economists Linda Cohen and Roger Noll, for instance, reviewed six large government commercialization programs and concluded that a systematic bias exists to continue programs long after their failure becomes imminent.17 According to Cohen and Noll, the Clinch River Breeder Reactor, the supersonic transport plane, and many synfuels survived long after they were unjustifiable. The “bottom line” in government programs is political and not economic. Cohen and Noll conclude: The overriding lesson from the case studies is that the goal of economic efficiency —to cure market failures in privately sponsored commercial innovation— is so severely constrained by political forces that an effective, coherent national commercialization R&D program has never been put in place. The internal incentives within government organizations, the absence of a financial bottom line, and the difficulty of measuring output work together to produce inefficiencies in government.18¶ An example of the incentive within government to meet the interest of government rather than the public can be found in several federal programs advertised as global warming mitigation initiatives. Federal agencies that have internal incentives to protect their existing programs now rationalize those programs as providing climate change benefits. For instance, the Energy Star program of the U.S. Environmental Protection Agency seeks to obtain voluntary agreement from suppliers of personal computers to reduce energy requirements. In exchange for participating, the computer manufacturers put an energy star label on their product. Unfortunately, the relationship between energy use by computers and global warming is dubious at best.19 An honest climate change program would focus on carbon emissions and other greenhouse gas emissions rather than on energy efficiency.20 However, once the program is established, the “internal” incentives are to protect it and, in this case, to argue that it reduces the threat of global warming.¶ Another example of this dynamic at work is the incentive facing program managers in the public sector to fund research projects that will advance their careers. While it’s always possible to fund programs on the basis of their potential to contribute to scientific progress, regardless of their policy implications, supporting research designed to buttress an administration’s policy position is a better career move than presenting scientific evidence that conflicts with an existing policy position. Program managers in the Clinton administration were motivated to fund research likely to conclude that global warming is an imminent threat.21 Researchers, attempting to secure funding from the DOE or the Environmental Protection Agency, are more likely to obtain government funding if their research record and proposal supports the government view rather than the skeptics’ view.

#### Government auspices delay adoption because they make poor development choices

**Apt et al, 07** – executive director of the Electricity Industry Center at Carnegie Mellon University’s Tepper School of Business and the Department of Engineering and Public Policy, where he is a Distinguished Service Professor (Jay, “Promoting Low-Carbon Electricity Production,” Issues in Science and Technology, Spring, <http://www.issues.org/23.3/apt.html>

Conversely, if the government concentrates on supporting large and lengthy demonstration projects, this might delay commercial adoption of new technology by a decade or more. For example, the Department of Energy’s (DOE’s) Future-Gen project, which will construct an IGCC coal-fired plant with CO2 capture and sequestration, may be far less effective in inducing rapid adoption and technological progress than loan guarantees that encourage development of similar technology under private control. Like similar projects in the past, FutureGen’s effectiveness is likely to be blunted because the project in all probability will incorporate too many new (government-driven) technologies that, in combination with a lack of a champion who has the financial commitment to push the project to success, will make CO2 capture look more risky and costly than it will be under commercial development.

#### Earmarked R&D for specific projects wrecks research credibility, undermines the ability to attract scientists because the project has not been peer reviewed

**Greenberg 01** (Daniel S., Guest Scholar at the Brookings Institution and Journalist and Author, Science, Money, and Politics, pg. 185-188)

The research-related earmarks not only elude congressional examination, but, by definition, they also bypass professional peer review, the system sanctified by scientific tradition as the sine qua non for optimal allocation of research resources. The review process varies among federal research agencies and private foundations. But basically it is a blue-ribbon jury system in which panels of researchers evaluate and rank research proposals. Aimed at achieving objective assessment by disinterested experts, peer review is often assailed as intrinsically biased against novelty and innovation because, the critics contend, it relies on people who constitute the status quo of science. Paraphrasing Churchill on democracy, some of the strongest defenders of peer review limply respond that it is the worst possible system, except for all others. As might be expected, the “haves” of federal academic research funding strongly favor peer review and are generally opposed to earmarks. Lesser institutions, however, angrily complain that peer review inevitably assures that the rich get richer while others are excluded. Inequity is inherent to the system, they insist, and justifies alternative means of getting at the money—specifically, earmarking. Despite repeated denunciations as unclean, earmarked money is irresistable for many universities, including some that also compete successfully for peer-reviewed funds. Though the trend is consistently upward, we should keep in mind that in any year, at least so far, the earmarks are a small portion of the many billions, depending on what’s counted, appropriated for academic research via aboveboard routes. In 2000, the official count for all academic research appropriations was over $15 billion, of which alleged earmarks constituted a small share. But the earmarks going to the universities are nonetheless substantial in the scarcity economy of research funding. The earmark process is galling to institutions that feel penalized for complying with the rules, even if the rules favor their success. ¶ The practice outrages the officials of the established system to the point of evoking extravagant recriminations—especially from program managers in federal agencies. When their budgets are hijacked to finance earmarks, decision-making authority over research projects passes to the political budget raiders on Capitol Hill. The right order of things is upset, with far-reaching undesireable consequences, they contend. In 1994, Martha Krebs, the director of energy research at the Department of Energy, told a congressional hearing that earmarks “may also inadvertently discourage young scientists from pursuing research careers because they believe it is not an honest or open process.” This may be so, but as with many provocative speculations and assertions in the politics of science, supportive evidence is lacking.

#### Competitive peer review maintains scientific competitiveness – earmarking R&D destroys innovation and integrity of the process, discouraging scientists

**Greenwood, 94** - Associate Director for Science, Office of Science and Technology Policy (M.R.C., Federal Document Clearing House Congressional Testimony, 9/21, lexis)

The primary problem with academic earmarking is that it is not carried out within the context of national, agency, or Congressional priority setting. With limited resources available to appropriators, earmarks divert funds from key research programs to programs that are not as essential to the achievement of national goals. Further, because earmarking is not a competitive process for recipients, earmarking may result in a generally lower quality scientific product.¶ Much of the tremendous success of American science and technology is directly attributable to the process of merit-based peer review funding that has developed over the years. In the United States, we have developed a unique and extraordinary process of competition that rests on excellence. We encourage investigator initiated research that allows unique ideas and individual creativity to flourish. We also encourage mission-oriented research that allows agencies to pursue research programs that supports the accomplishment of their missions. Our success and leadership in science and technology is a direct derivative of this process. The practice of earmarking runs counter to the very process of research funding that has assured excellence in American science. To destroy the system would be a national tragedy.¶ The General Accounting Office has examined the issue of federal research funding and the system of peer review in a series of reports. In the most recent of these studies, dated June, 1994, the GAO found that the "peer review processes appear to be working reasonably well..." The report further assures us that, 11 ... contrary to what some critics have asserted, reviewers were not more likely to come from elite institutions than were applicants, and there were few differences in region of origin." The GAO findings thus support the contention that the system of competitive funding underlying federal research programs is generally equitable and unbiased.¶ There are essentially two types of academic earmarking, both of which hinder the achievement of Administration and Congressional objectives, and the fulfillment of Agency missions. Certain earmarks direct funding to a specific recipient institution or research program and identify a specific issue to be studied, or a type of facility to be constructed. Such earmarks often may interfere with goals and strategies defined by Congress and the Administration. Furthermore, recipient-specific earmarking is the least likely to yield the best scientific results because such projects undergo no competitive process of selection.¶ The second form of academic earmarking provides funding for facilities or programs related to specific issues but does not direct the monies to a specific recipient. Such earmarks allow agencies to select the most qualified applicant to receive the earmarked funds and some level of peer review and competition is possible. The problem, of course, is that the earmark demands activities and programs that may not be consistent with the agency missions. Thus, both types of earmarks are likely to distort agency programs and the NSTC interagency process we are working so hard to develop.¶ A charitable view of earmarking is to view it in part as a symptom of the success of U.S. science and technology. Academic earmarking results from the fact that academic institutions with quality science and technology programs historically have gained prestige, offered superior training to their students, and spawned local industries, leading to economic prosperity for local districts. Thus, it has become dogma that local economic and intellectual prosperity is associated with the competitiveness of local universities. It is understandable, then, that members of Congress would advocate vigorously for Federal funding for their academic institutions.¶ The Effects of Earmarking on National Priority Setting Perhaps the strongest argument against academic earmarking is that earmarks interfere with established policy and budget priorities on all levels: National, Congressional, and agency.¶ As mentioned earlier, earmarks subvert both the priority-setting and peer review systems that have served our nation so well. On an agency level, earmarking diverts funding from projects that have been identified as essential to the achievement of agency and national goals. On a Congressional level, earmarking may run counter to the desires of the authorizing committees. On a national level, the practice of earmarking reduces the amount of support available for the best competitive projects and detracts from projects that address our national goals. In general, then, the process of earmarking interferes with progress toward goals, erodes the structure of our competitive process, and inadvertently may lower the quality of our research; such results ultimately may discourage young scientists from pursuing research careers.

#### Energy competitiveness key to hegemony

**Klarevas 2k9** (Louis, Professor, Center for Global Affairs, New York University “Securing American Primacy While Tackling Climate Change: Toward a National Strategy of Greengemony,” pg online @ <http://www.huffingtonpost.com/louis-klarevas/securing-american-primacy_b_393223.html> //ghs-ef)

As national leaders from around the world are gathering in Copenhagen, Denmark, to attend the United Nations Climate Change Conference, the time is ripe to re-assess America's current energy policies - but within the larger framework of how a new approach on the environment will stave off global warming and shore up American primacy. By not addressing climate change more aggressively and creatively, the United States is squandering an opportunity to secure its global primacy for the next few generations to come. To do this, though, the U.S. must rely on innovation to help the world escape the coming environmental meltdown. Developing the key technologies that will save the planet from global warming will allow the U.S. to outmaneuver potential great power rivals seeking to replace it as the international system's hegemon. But the greening of American strategy must occur soon. The U.S., however, seems to be stuck in time, unable to move beyond oil-centric geo-politics in any meaningful way. Often, the gridlock is portrayed as a partisan difference, with Republicans resisting action and Democrats pleading for action. This, though, is an unfair characterization as there are numerous proactive Republicans and quite a few reticent Democrats. The real divide is instead one between realists and liberals. Students of realpolitik, which still heavily guides American foreign policy, largely discount environmental issues as they are not seen as advancing national interests in a way that generates relative power advantages vis-à-vis the other major powers in the system: Russia, China, Japan, India, and the European Union. Liberals, on the other hand, have recognized that global warming might very well become the greatest challenge ever faced by mankind. As such, their thinking often eschews narrowly defined national interests for the greater global good. This, though, ruffles elected officials whose sworn obligation is, above all, to protect and promote American national interests. What both sides need to understand is that by becoming a lean, mean, green fighting machine, the U.S. can actually bring together liberals and realists to advance a collective interest which benefits every nation, while at the same time, securing America's global primacy well into the future. To do so, the U.S. must re-invent itself as not just your traditional hegemon, but as history's first ever green hegemon. Hegemons are countries that dominate the international system - bailing out other countries in times of global crisis, establishing and maintaining the most important international institutions, and covering the costs that result from free-riding and cheating global obligations. Since 1945, that role has been the purview of the United States. Immediately after World War II, Europe and Asia laid in ruin, the global economy required resuscitation, the countries of the free world needed security guarantees, and the entire system longed for a multilateral forum where global concerns could be addressed. The U.S., emerging the least scathed by the systemic crisis of fascism's rise, stepped up to the challenge and established the postwar (and current) liberal order. But don't let the world "liberal" fool you. While many nations benefited from America's new-found hegemony, the U.S. was driven largely by "realist" selfish national interests. The liberal order first and foremost benefited the U.S. With the U.S. becoming bogged down in places like Afghanistan and Iraq, running a record national debt, and failing to shore up the dollar, the future of American hegemony now seems to be facing a serious contest: potential rivals - acting like sharks smelling blood in the water - wish to challenge the U.S. on a variety of fronts. This has led numerous commentators to forecast the U.S.'s imminent fall from grace. Not all hope is lost however. With the impending systemic crisis of global warming on the horizon, the U.S. again finds itself in a position to address a transnational problem in a way that will benefit both the international community collectively and the U.S. selfishly. The current problem is two-fold. First, the competition for oil is fueling animosities between the major powers. The geopolitics of oil has already emboldened Russia in its 'near abroad' and China in far-off places like Africa and Latin America. As oil is a limited natural resource, a nasty zero-sum contest could be looming on the horizon for the U.S. and its major power rivals - a contest which threatens American primacy and global stability. Second, converting fossil fuels like oil to run national economies is producing irreversible harm in the form of carbon dioxide emissions. So long as the global economy remains oil-dependent, greenhouse gases will continue to rise. Experts are predicting as much as a 60% increase in carbon dioxide emissions in the next twenty-five years. That likely means more devastating water shortages, droughts, forest fires, floods, and storms. In other words, if global competition for access to energy resources does not undermine international security, global warming will. And in either case, oil will be a culprit for the instability. Oil arguably has been the most precious energy resource of the last half-century. But "black gold" is so 20th century. The key resource for this century will be green gold - clean, environmentally-friendly energy like wind, solar, and hydrogen power. Climate change leaves no alternative. And the sooner we realize this, the better off we will be. What Washington must do in order to avoid the traps of petropolitics is to convert the U.S. into the world's first-ever green hegemon. For starters, the federal government must drastically increase investment in energy and environmental research and development (E&E R&D). This will require a serious sacrifice, committing upwards of $40 billion annually to E&E R&D - a far cry from the few billion dollars currently being spent. By promoting a new national project, the U.S. could develop new technologies that will assure it does not drown in a pool of oil. Some solutions are already well known, such as raising fuel standards for automobiles; improving public transportation networks; and expanding nuclear and wind power sources. Others, however, have not progressed much beyond the drawing board: batteries that can store massive amounts of solar (and possibly even wind) power; efficient and cost-effective photovoltaic cells, crop-fuels, and hydrogen-based fuels; and even fusion. Such innovations will not only provide alternatives to oil, they will also give the U.S. an edge in the global competition for hegemony. If the U.S. is able to produce technologies that allow modern, globalized societies to escape the oil trap, those nations will eventually have no choice but to adopt such technologies. And this will give the U.S. a tremendous economic boom, while simultaneously providing it with means of leverage that can be employed to keep potential foes in check. The bottom-line is that the U.S. needs to become green energy dominant as opposed to black energy independent - and the best approach for achieving this is to promote a national strategy of greengemony.

#### Heg prevents extinction and is the strongest correlate of prosperity

**Barnett 2011** – Former Senior Strategic Researcher and Professor in the Warfare Analysis & Research Department, Center for Naval Warfare Studies, U.S. Naval War College, worked as the Assistant for Strategic Futures in the Office of Force Transformation in the DOD (3/7, Thomas, World Politics Review, “The New Rules: Leadership Fatigue Puts U.S., and Globalization, at Crossroads”, http://www.worldpoliticsreview.com/articles/8099/the-new-rules-leadership-fatigue-puts-u-s-and-globalization-at-crossroads, credit to LDK)

Events in Libya are a further reminder for Americans that we stand at a crossroads in our continuing evolution as the world's sole full-service superpower. Unfortunately, we are increasingly seeking change without cost, and shirking from risk because we are tired of the responsibility. We don't know who we are anymore, and our president is a big part of that problem. Instead of leading us, he explains to us. Barack Obama would have us believe that he is practicing strategic patience. But many experts and ordinary citizens alike have concluded that he is actually beset by strategic incoherence -- in effect, a man overmatched by the job.  It is worth first examining the larger picture: We live in a time of arguably the greatest structural change in the global order yet endured, with this historical moment's most amazing feature being its relative and absolute lack of mass violence. That is something to consider when Americans contemplate military intervention in Libya, because if we do take the step to prevent larger-scale killing by engaging in some killing of our own, we will not be adding to some fantastically imagined global death count stemming from the ongoing "megalomania" and "evil" of American "empire." We'll be engaging in the same sort of system-administering activity that has marked our stunningly successful stewardship of global order since World War II.  Let me be more blunt: As the guardian of globalization, the U.S. military has been the greatest force for peace the world has ever known. Had America been removed from the global dynamics that governed the 20th century, the mass murder never would have ended. Indeed, it's entirely conceivable there would now be no identifiable human civilization left, once nuclear weapons entered the killing equation.  But the world did not keep sliding down that path of perpetual war. Instead, America stepped up and changed everything by ushering in our now-perpetual great-power peace. We introduced the international liberal trade order known as globalization and played loyal Leviathan over its spread. What resulted was the collapse of empires, an explosion of democracy, the persistent spread of human rights, the liberation of women, the doubling of life expectancy, a roughly 10-fold increase in adjusted global GDP and a profound and persistent reduction in battle deaths from state-based conflicts.

### CP

#### The United States federal government should adopt the recommendations of their 1ac GAO evidence and should not do the plan.

#### Solves

**GAO ’10** (National Nuclear ¶ Security ¶ Administration Needs ¶ to Ensure Continued ¶ Availability of Tritium ¶ for the Weapons Stockpile, 10/2010, <http://www.gao.gov/new.items/d11100.pdf>)

Recommendations for Executive Action

To increase confidence in the nation’s continued ability to produce a reliable supply of tritium in the future and to improve the management of NNSA’s Tritium Readiness Program, we recommend that the Secretary of Energy direct the Administrator of NNSA to take the following four actions:

In cooperation with TVA and NRC, develop a comprehensive plan to manage releases of tritium from TVA’s Watts Bar 1 and any other reactors chosen to irradiate TPBARs in the future.

1. Conduct a comprehensive analysis of alternatives to the current tritium production strategy in the event that NNSA continues to be unable to meet its tritium production goals. This alternatives analysis should be coordinated closely with DOD and take into account current and future nuclear weapons stockpile requirements for tritium.

Complete an acquisition strategy that reflects the outcome of the analysis of alternatives and aligns the contracting structure to that plan and, if necessary, ensures adherence to the appropriate contracting procedures for long-duration contracts.

Ensure NNSA’s future budget requests account for the large unexpended balances in the Tritium Readiness Program and better

### Hydrogen

**Their impact is overstated—resilience and adaptation check**

**Farrell et al, 02 -** research engineer in the Department of Engineering and Public Policy at Carnegie Mellon University and the executive director of the Carnegie Mellon Electricity Industry Center (Alexander, “Bolstering the Security of the Electric Power System,” Issues in Science and Technology, Spring, http://www.issues.org/18.3/farrell.html)

Turning out the lights

Many terrorism scenarios involve disruption of electric service, or "turning out the lights." Whether this would allow terrorists to create widespread fear and panic is open to question. In the United States, households lose power for an average of 90 minutes per year. For the most part, individuals and society cope with these outages well, and power companies respond rapidly to restore service. Facilities that have special needs for reliability, such as hospitals and airports, typically have backup generators.

The local distribution system is the source of most outages; these affect relatively small numbers of people. The bulk power (generation and transmission) system causes only a few outages each year. In its most recent report on failures in this part of the electric power system, the North American Electricity Reliability Council (NERC) identified 58 "interruptions, unusual occurrences, demand and voltage reductions, and public appeals" in 2000. Of these events, almost half (26) were due to weather, mostly thunderstorms. Operator or maintenance errors accounted for 12 events, another 12 were due to faulty equipment, and 2 (including the largest single event) were due to forest fires. Six outages occurred simply due to failure to have sufficient power to meet demand. Not all of these 58 events caused the lights to go out, but when they did, many customers were affected. Even so, recovery was typically swift. The largest single outage in 2000 affected more than 660,000 customers in New Mexico but lasted for less than four hours.

Natural challenges of even larger scale have been met. For example, in January 1998 an ice storm struck Southern Canada and New York State, felling 1,000 transmission towers and 30,000 distribution poles while sending thousands of tree branches into power lines. This event left 1.6 million people without power, some for more than a month. Almost a quarter-million people were forced to leave their homes. Insurance claims reached about $1 billion (Canadian). This event was disruptive and costly, but it did not create terror or significant loss of life.

**Empirically–food crises are effected by local factors, not global prices**

**Paarlberg, 08 -** professor of political science at Wellesley College and a visiting professor of government at Harvard University (Robert, “The Real Food Crisis,” Chronicle of Higher Education, 6/27, lexis)

Ironically, it was only when the so-called food crisis of the 1970s came to an end, during the slow-growth decade of the 1980s, that food circumstances in poor countries significantly worsened. In Latin America, even though world **food prices** were falling sharply, the number of hungry people increased from 46 million to more than 60 million. The reason was a regional "debt crisis" triggered by higher U.S. interest rates after 1979. The number of hungry people also increased sharply in Africa during the 1980s. The reason was faltering farm production, exacerbated in some regions by severe drought and civil conflict. The price for imported food was down, but hunger was up. Most real food crises are local rather than global.

#### Abiotic oil means limitless supplies – the earth will always generate more – no oil shock

M. Ragheb 2-4-2012; professor nuclear engineering at University of Illinois-Champagne BIOGENIC AND ABIOGENIC PETROLEUM https://netfiles.uiuc.edu/mragheb/www/NPRE%20402%20ME%20405%20Nuclear%20Power%20Engineering/Biogenic%20and%20Abiogenic%20Petroleum.pdf

Proponents of the theory of abiogenic or abiotic petroleum formation on the other hand, adhering to theories developed by several Ukrainian and Russian scientists, argue that hydrocarbons exist and are generated deep in the Earth’s mantle, below its crust. The implication is that there could be vast deposits of petroleum and gas yet to be discovered miles below the Earth’s crust, with a half-life of millions of years, assuring a practically unlimited supply. They dismiss the idea that petroleum is a finite resource of biological origin and that given enough time, the Earth’s finite crustal petroleum and gas reservoirs get replenished through diffusion from the mantle’s practically limitless source to the surface.

### 1nc tritium

#### We have more than enough tritium

**Grossman, 11** – Global Security Newswire (Elaine M., 10/28/11, *Some Nuclear Experts Question Ramp-up in U.S. Tritium Production*, http://www.nti.org/gsn/article/some-nuclear-experts-question-ramp-up-in-us-tritium-production/)

The Energy Department's semiautonomous National Nuclear Security Administration plans over the next few years to more than triple capacity to produce tritium at the commercial Watts Bar reactor in eastern Tennessee, according to the agency's fiscal 2012 "Stockpile Stewardship and Management Plan."

This budget year alone, the agency is seeking a $27.3 million boost for its "tritium readiness" effort, in which production will increase from 240 to 544 rods per cycle at a cost of $77.5 million, the NNSA fiscal 2012 funding request to Congress states. Since production began at the Tennessee Valley Authority reactor in 2004, 10 tritium-irradiation cycles -- each taking about 18 months -- have been completed.

The readiness program also includes the process of extracting tritium from the irradiated rods at the Energy Department's Savannah River Site, located on South Carolina's western border with Georgia, and of maintaining military reserves of the gas.

By 2020, the agency intends to boost production to 1,700 rods each cycle, according to Terry Johnson, a TVA spokesman. The Obama administration seeks to spend $270.5 million on tritium readiness between fiscal 2013 and 2016, producing no fewer than 240 rods per cycle as a minimum "sustaining rate" during that period.

This will "ensure a capability is available in the event that future resources are allocated to ramp up production to support the requirements" of a future U.S. nuclear stockpile, the funding plan states. The blueprint also calls for extracting tritium at a clip of no less than one batch of rods per year.

Thanks to post-Cold War reductions in the size of the nuclear stockpile, the Energy Department now needs less new tritium than initially projected in May 1999, according a recent federal notice.

However, tritium production has gone a bit slower than anticipated because more of the gas than expected has leached from rods at Watts Bar into reactor coolant water. That has left slightly less tritium available to extract from each rod, Johnson said.

The nuclear agency is thus exploring options for further increasing its production capacity, the notice states.

However, not everyone sees new production as a must. Some experts are questioning why a standard practice of recycling tritium from deactivated nuclear warheads is not offering sufficient reserve stocks of the gas, particularly given anticipated arms control reductions and further weapon retirements from the strategic hedge force.

If the United States can deactivate warheads at an average rate of at least 5 percent every year, "there would be no need to produce additional tritium," said Charles Ferguson, president of the Federation of American Scientists. That would offset the roughly 5 percent rate of annual decay in tritium in the remaining warheads, he said.

On occasions when warheads are shifted out of the operationally deployed stockpile or ready-reserve force, tritium gas is typically removed, purified and reused in weapons that are still active, the career physicist and a number of other experts said.

The nation removes tritium from inactive stockpile warheads "as soon as logistically practical, and the tritium is returned to the national repository" at Savannah River, according to the Defense Department's 2011 "Nuclear Matters Handbook." The government has not elaborated on the rate at which this is done or exactly how much reserve supply is available today.

#### Aging warheads will remain functional

**Grossman, 11** – Global Security Newswire (Elaine M., 10/28/11, *Some Nuclear Experts Question Ramp-up in U.S. Tritium Production*, http://www.nti.org/gsn/article/some-nuclear-experts-question-ramp-up-in-us-tritium-production/)

Continuing a policy from previous administrations, the Obama White House is also keeping roughly 2,290 warheads in an active hedge reserve force that receives regular maintenance and is kept stocked with tritium, according to Nuclear Matters. This stockpile hedge force constitutes more than one fully assembled backup warhead for each strategic warhead deployed at bomber aircraft bases, on ICBMs or on submarine-launched ballistic missiles.

The State Department last week announced that the nation now has 1,790 operationally deployed warheads, as the United States gradually reduces to a limit of 1,550 fielded weapons under the U.S.-Russian New START agreement (see GSN, Oct. 26).

One key distinction between a warhead in the active force -- either deployed or hedge -- and one that has been deactivated is that the tritium reservoir in the active warhead is routinely replaced every few years to ensure that the weapon's radioactive gas does not expire.

The hedge warheads are maintained in active reserve status in case "an unforeseen catastrophic failure of a class of delivery vehicles, warhead-type or family" is discovered or there is "an unexpected reversal of the geopolitical situation that would require an increase in the number of weapons available for use," according to the Pentagon handbook.

Kristensen sees this as overkill and a waste of resources.

"I think it's totally unnecessary to retain active weapons in the hedge," he said in an interview this week. "Short of a Martian attack, there's nothing that would require us to suddenly upload 2,000 warheads onto the force. It's not going to happen."

Finding a technical defect that puts a portion of U.S. warheads out of commission is perhaps more plausible than a resurgent-threat scenario in justifying the retention of a hedge force, Kristensen said. However, if such a flaw was discovered, it could likely be handled quietly over time without a need for massive warhead swap-outs from the active reserve stockpile, he argued.

"Would it really require us to have active weapons that we'd have to upload immediately?" he said, calling for a "reality check" on how big of a backup nuclear force is truly needed. "The rest of the force would still be good. We'd have enough [other] warheads left to bomb Russia back to the Stone Age."

In fact, the Pentagon anticipates reducing the size of the active stockpile hedge force in coming years as warhead maintainers develop more replacement components that could help aging weapons remain functional (see GSN, Aug. 18).

#### Fusion inev

Olynyk, ‘12

[Geoff, The Tech -- MIT, 3-6, “Opinion: GUEST COLUMN: Fusion research is a wise investment,” http://tech.mit.edu/V132/N9/olynyk.html]

The proposed budget ramps down the U.S. fusion program at a time when other countries are scaling up their efforts. In China, a new long-pulse tokamak called EAST is now producing scientific results, and the government has announced plans to train 2,000 fusion PhDs this decade. In Korea, fusion funding is guaranteed by law until 2040. Germany has a new stellarator (another type of magnetic fusion device) coming online next year. A consortium of six nations plus the EU is constructing the world’s first burning-plasma device, the ITER tokamak in France, which will produce 10 times more fusion power than external power put in to heat the plasma. The rest of the world sees the tremendous potential of magnetic fusion energy.

#### Solves tritium supply

**Rhodes 5** [Energy Balance, December 02, 2005, Christopher James Rhodes, President of the Royal Society of Chemistry ESR Group, and the award of a Higher Doctorate (D.Sc) by the University of Sussex, “Feasible Fusion Power? - I doubt it!”]

Feasible Fusion Power? - I doubt it!¶ When I was about 10, I recall hearing that nuclear fusion power would become a reality "in about thirty years". The estimate has increased steadily since then, and now, thirty odd years on, we hear that fusion power will come on-stream "in about fifty years". So, what is the real likelihood of fusion based power stations coming to our aid in averting the imminent energy crisis? Getting two nuclei to fuse is not easy, since both carry a positive charge and hence their natural propensity is to repel one another. Therefore, a lot of energy is required to force them together so that they can fuse. To achieve this, suitable conditions of extremely high temperature, comparable to those found in stars, must be met. A specific temperature must be reached in order for particular nuclei to fuse with one another. This is termed the "critical ignition temperature", and is around 400 million degrees centigrade for two deuterium nuclei to fuse, while a more modest 45 million degrees is sufficient for a deuterium nucleus to fuse with a tritium nucleus. For this reason, it is deuterium-tritium fusion that is most sought after, since it should be most easily achieved and sustained.One disadvantage of tritium is that it is radioactive and decays with a half-life of about 12 years; consequently, it exists naturally in any negligible amounts.

#### The plan reduces helium—turns case

Mark Haynes 12, President, Concordia Power, 7/20/12, “Helium: Supply Shortages Impacting our Economy, National Defense and Manufacturing,” Congressional Documents and Publications, p. lexis

Mr. Chairman and Members of the Subcommittee, my name is Mark Haynes, I am President of Concordia Power, a small company that works with the NGNP Industry Alliance. The NGNP Industry Alliance is comprised of a number of major companies including Dow Chemical, ConocoPhilips, Entergy, AREVA, Westinghouse, SGL Group, Graftech, Mersen, Toyo Tanso, Ultra-Safe Nuclear, Technology Insights and the Petroleum Technology Alliance Canada.

Our Alliance’s purpose is to help ensure the commercialization of High Temperature Gas Cooled Reactors (HTGRs) as an extremely important energy option for the future. HTGRs, which are helium cooled, are unique in both their very high outlet temperatures and their intrinsic safety characteristics. Although these reactors will include multiple safety features, they will require no active or passive safety systems or operator intervention to ensure the safety of the public. Taken together, these characteristics make HTGRs not only very desirable electric power generators with extraordinarily high efficiency and safety, but they also allow HTGRs to be co-located with major industrial and extraction facilities where their high temperature output can substitute for the very large amounts of fossil fuels these facilities currently consume in the production of process heat.

In addition, HTGRs can also play an unmatched role in greatly improving the efficiency and environmental performance of converting coal or other indigenous carbon sources to liquid fuels with an extremely small carbon footprint. As explained in more detail later in this testimony, a relatively conservative estimate is that in North America, there is a market for 600 or more HTGR modules in this century. To the point of this hearing, the unique characteristics of helium are key to making this technology possible.

I believe it’s correct to say that our invitation to testify here today does not relate to any particular expertise we might have with regard to either the Federal Helium Reserve or the current helium markets. Rather, our presence here relates more to the fact that HTGRs are a unique and important example of an emerging energy technology that is very dependent on a reliable and affordable supply of helium in the future.

Why Helium is Important to HTGRs

Helium coolant is a key element of HTGR design. Helium has four characteristics that make it a superior reactor coolant:

- It is chemically inert in the HTGR process. Hence, during reactor operations, extraordinary event or interruption by natural cause (as a flood or earthquake) or a human error or equipment event that affects the plant normal operations, it does not corrode reactor internals nor does it contribute to the spread of significant amounts of radioactive particles around the plant or the environment;

- It is itself “invisible” to radiation: it does not become radioactive in the course of cooling the reactor core and the reactivity of the core is not impacted by its presence or non-presence. This second characteristic is an important added safety feature in the event of even its complete loss from the reactor core in an accident; and

- It is always in a gaseous phase at any temperature in the core. This ensures that in an extraordinary accident event there is no extreme pressure conditions created, such as can occur in a light water reactor where the flashing of coolant water into steam requires a very robust containment in the event of a loss of coolant.

- It is an efficient heat transport fluid. This allows a more economical design and efficient plant operation. It is also important to note that the other materials (graphite and ceramic coated fuel) are also non-corrosive and very chemically compatible with helium. This combination of materials is stable at extremely high temperatures. So, in a worst-case scenario loss of helium accident, the reactor core structure remains stable and the fuel stays well within its design limits. This is additional insurance that a Fukushima-type scenario cannot happen with an HTGR.

Helium Use and HTGRs

Although it is difficult to predict with precision how much helium will be required in the future for HTGRs, our Alliance, in concert with the Idaho National Laboratory estimates that in North America, there could be a future demand for several hundred 600 Megawatt thermal modules. This includes meeting needs in petrochemical production, refining, liquid fuel production, electric power generation and other markets.

Each reactor module in a fleet of HTGRs would require an initial inventory of helium when it enters service as well as replenishment helium during subsequent years of operation for the helium consumed each year in the supporting auxiliary equipment. The initial operating inventory for each of these 600 MWt modules would be approximately 2000 kg of helium. The annual need for makeup helium is assumed to be 10% of the operating inventory which is the upper design limit. So the annual helium requirement for a whole fleet of HTGRs is the total of the initial inventory required for new modules going into service plus the makeup supply for the existing modules already in service. As the first HTGRs are deployed, the initial inventory requirement governs the HTGR fleet helium consumption. But as the fleet grows, the makeup supply for the existing fleet quickly dominates the helium demand.

#### This collapses US particle acceleration efforts

CN 12 – Citation News, “Scientists' High-Pitched Response to Helium Shortage”, 3-22, http://www.cyberregs.com/webapps/Blog/post/Scientists-High-Pitched-Response-to-Helium-Shortage.aspx

Helium - the second lightest element in the universe with an atomic weight of 4.002602 - is an inert gas that can be cooled to temperatures of -270 Celsius without becoming a solid, making it indispensible in the operation of, among many things, superconducting magnets used in MRI scanners, telescopes and particle accelerators like the Large Hadron Collider. Helium also holds an important place in the defense industry. It also has some far less profound applications, which consume great quantities of the gas annually - applications such as party balloons and squeak-voice huffing. These latter applications have drawn the ire of researchers. This month, the Guardian reported that the UK's Rutherford Appleton Laboratory wasted three days and £90,000 (US$ 143,091), when, during an important experiment exploring the structure of matter, they could not obtain a supply of helium. Needless to say, the scientists were in a less-than-celebratory mood. "We put the stuff into party balloons and let them float off into the upper atmosphere, or we use it to make our voices go squeaky for a laugh. It is very, very stupid. It makes me really angry,” said Oleg Kiricheck, the research team leader. Cornell University Professor Robert Richardson is also concerned. He believes that, with our current reserves of helium, the price of the element severely discounts its real value. By his estimation, the price of a single party balloon should cost as much as $100. Richardson suggests increasing the price of helium by 20-50% to eliminate excessive waste. Although helium ranks next to hydrogen as the most abundant element in the universe, here on earth it is a finite commodity. The helium that is here is all we have! Helium is collected during natural gas and oil drilling. If the gas is not captured, it dissipates into earth's upper atmosphere and is lost forever. The same happens when a party balloon is released into the air, or when it self-deflates, because helium atoms are so small that they can easily move through the balloon's latex shell. Party balloons do not represent the only wasteful expenditures of helium. Macy's Thanksgiving Day parade typically uses 400 Mcf a year, although there have been recent attempts to recycle some of the helium used in the floats. NASA uses up to 75 MMcf annually to pressurize rocket tanks. The agency has made no attempt to recycle this huge amount of gas. Weather balloons also consume about 140 MMcf of helium per year. At the present rate of supply depletion, the United States will become an importer of helium from the Middle East and Russia within 10 years, and the world will run out of helium within 30 years. This would have major implications for space travel and exploration, scientific and nuclear research, medical advances and early detection of diseases. Possible solutions for this problem should address supply, not pricing. A drastic increase in the price of helium as a preservative measure would cause a huge spike in billing for medical procedures, such as MRIs, scientific research, and defense expenditures, as well as party balloons.

#### Accelerators stop nuclear testing

* Monitoring arms control
* Maintaining stockpile stewardship

Henning 10 (Walter, Senior Physicist – Argonne National Laboratory and Member – American Association for the Advancement of Science, “Accelerators for America’s Future”, June, <http://www.acceleratorsamerica.org/files/Rep> ort.pdf)

From the earliest days of their development, accelerators have made critical contributions to the security and defense of the United States. During World War II, accelerators contributed directly to the separation of isotopes using industrial- scale accelerator mass spectrometry and provided facilities for defense-related nuclear physics research. The plutonium war effort relied heavily on Ernest Lawrence’s 60-inch cyclotron at Berkeley. In turn, war-related research, most notably radar, found peacetime applications in technologies for accelerators. Post World War II government support of accelerator research led to the global preeminence of U.S. acceleratorresearch facilities and technological expertise. Universities and national laboratories, including defense laboratories, developed increasingly powerful and sophisticated accelerators for basic and applied sciences. As early as 1949, the potential uses of accelerators for national security included the predetonation of critical nuclear devices, the deployment of antipersonnel weapons, the detection of contraband fissile materials, the identification of aircraft and the enrichment of nuclear materials. Lawrence and the Berkeley group developed prototype accelerators including a high-intensity linear accelerator, the Materials Testing Accelerator. The current U.S. accelerator-facility infrastructure at the national laboratories is the direct legacy of the Atomic Energy Commission’s postwar program. The Department of Energy defense laboratories, Livermore, Los Alamos and Sandia, have also pursued security-related accelerator technology. Induction linac technology, originally developed for acceleratorinduced fusion, finds application in radiography, of direct importance to the nuclear weapons program. The Los Alamos Neutron Science Center, or LANSCE, provides important nuclear data. Both Livermore and Sandia pursued electronbeam- based technology for directed-energy weapons. The 458 Accelerators for America’s Future Particle beams can scan shipping containers for contraband materials. Defense Advanced Research Projects Agency, or DARPA, supported the exploration of the potential of accelerators for direct military applications at the Advanced Test Accelerator and the RADLAC I, the Radial Line Accelerator. The Los Alamos-based Beam Experiments Aboard a Rocket, or BEAR, deployed the then-new radio-frequency-quadrupole, or RFQ, based LINAC. This experiment succeeded in producing a neutral particle beam in flight and generated data on these technologies for the Department of Defense Strategic Defense Initiative Organization, SDIO. Argonne National Laboratory pursued neutral-particle-beam research with the Continuous Wave Deuterium Demonstrator. The SDIO activities were noteworthy for joint laboratory and industry cooperation. Early applications of accelerators to inspect nuclear fuels used commercial low-energy (tens of MeV) electron linacs to induce photo-fission reactions. These inspection technologies expanded to waste-drum assays in the 1980s and eventually to cargo inspections. The invention of the free electron laser in the 1970s led to ever-higher-power electromagnetic radiation using high-energy electrons, of direct interest to security and defense applications, including the Navy’s proposed application of free-electron laser technology to shipboard defense. Nearly all accelerator applications for security and defense have sprung from research and development in fundamental science. The promise of future accelerator technologies continues to rest on advances in basic science and its need for more and more powerful tools. These accelerator advances stock the shelves with technologies and data. The scientific and technical workforce engaged in these developments contributes to their application to security programs. Continued support for basic science and for accelerator R&D as a scientific discipline has great significance for national security and defense. Accelerator technologies find applications for a diverse and growing set of security and defense needs, including stockpile stewardship, war-fighter and asset protection, materials characterization, interrogation of cargo and inspection capabilities of all types, and the support of present and future nonproliferation regimes. Accelerator laboratories and technologies have the potential to make significant contributions to the needs of national security and defense in ten key areas: physical data; high-energy-density conditions; directed-energy capability; cargo inspection and interrogation; replacement of radioactive sources and materials; isotope production; nuclear forensics; compact, fieldable accelerator systems; simulation tools; and workforce training. Physical data National security and defense programs have a critical need for the highestquality data on materials characterization, material alteration, nuclear fission, and the interaction of radiation with materials. These requirements rely on all the types of accelerator facilities operated by the DOE Office of Science: neutron sources, synchrotron radiation light sources, and low- and high-energy particle beams. The data are necessary to reliably simulate systems for detecting special nuclear materials and byproducts of nuclear fission. Much of the current data is incomplete and much of it dates from the 1950s and 1960s. Missing data include time, angular, and neutron-gamma correlations; high-resolution spectroscopy; and nuclear resonance fluorescence. Existing accelerator facilities could perform this work, but often encounter impediments to conducting measurements with special nuclear materials. The facilities may lack licenses to hold such materials or may be unprepared for the associated health and safety requirements. Obtaining these data will require particle- and nuclear-physics-style detectors with near full solid-angle coverage, particle identification, and fast timing. A significant challenge is the development of detectors that operate in ambient conditions. For example, many current detectors must operate at extremely low (tens of degrees Kelvin) temperatures. Developing materials that can operate in ambient conditions while accurately recording events is a great challenge for security and defense field operations. A further challenge is to develop dedicated accelerator-based beamlines, for example a beamline at a synchrotron light source, for security and defense needs. Currently, the nation has no dedicated beamline for studies of exotic materials including radiological, biological, chemical and explosive ones. Accelerator-based science has much to contribute to better production of such materials, characterization of their reactions, decontamination and safer handling. High energy density Facilities that provide conditions of high energy density, such as those found in plasmas, provide an important, controlled environment for understanding phenomena important to aspects of the security mission. Many such pulsedpower based facilities have operated outside the DOE Office of Science mission. However, accelerator research for inertial confinement fusion concepts could advance such high-energy-density environments and serve high-energy-density research for security and defense. Directed energy Accelerator-based directed-energy capabilities have been pursued from the earliest times of accelerator development. Research into beam-power levels high enough for directed energy has supported the development of several technologies, most notably radio-frequency-quadrupole structures, or RFQs, now ubiquitous in the accelerator world. The current need is for development of a fieldable device for testing with defense and security partners. Relativistic electron beams can generate high-power electromagnetic radiation at various frequencies for directed-energy-specific missions. Examples include free electron lasers, highly directional gamma-ray beams through Compton scattering, and millimeter-wave to terahertz radiation. Free electron lasers can in principle achieve megawatt average power levels and optical beam quality and wavelengths required for security and defense purposes. In the mid-1990s, the highest average-power FEL had achieved only 11 watts. The Navy, as a user of the FEL at DOE’s Thomas Jefferson National Accelerator Facility achieved 2.2 kW, and a subsequent upgrade in 2006 demonstrated 14kW at 1.6microns, a wavelength of particular interest to the Navy. Free electron laser-based directed energy can expand to a wide range of missions. With increased efficiency and decreased weight, for example, FELs might serve as airborne platforms. With appropriate R&D, such goals appear achievable. Most such improvements would feed back to the basic science programs, potentially leading to lower-cost FEL systems and associated energyrecovery- linac light sources. A megawatt-class FEL will require several critical accelerator R&D developments. Credible designs exist for two of these: a high-quality ampereclass electron gun and continuous wave injector that can operate for weeks, and ampere-class SRF cavities with higher-mode suppression using high-temperature superconductors. However, demonstration of these designs requires funding. At the conceptual level with simulations, researchers are currently exploring a third critical element, megawatt-level RF couplers. Complete system modeling is underway; but bringing these efforts to the point of comparison to the actual performance of, for example, future 100-kW prototypes, will require major efforts. Cargo inspection and interrogation Security priorities of the last decade have turned to deterring the threat from subnational organizations. Some of these deterrents rely on identifying small quantities of special nuclear material in shipping containers through a signature reaction induced by radiation. Accelerators are a natural choice for producing well-characterized beams of radiation and are central to a number of current proposals to develop active interrogation techniques. “ Standing off” at a distance from the object under inspection by using electromagnetic radiation, including that from accelerators, is of significant interest in security and defense. The recent developments in terahertz radiation at FELs show potential for active interrogation with desirable standoff distances for cargo, improvised explosive devices and biological investigations. Other interrogation techniques use neutron and proton beams ranging from tens of keV to tens of GeV with radiographic sensitivity to a variety of materials. Standoff with GeV protons to induce fission will require milliampere beam currents, high gradient and high temperature superconducting technologies, as well as compact devices that laser-driven accelerator technology may make possible. Researchers have proposed more exotic radiography using the low interaction rates of muons to achieve significant standoff. Such proposals would build on developments for muon colliders and neutrino factories, the subject of R&D for possible future basic-science facilities. Replacement of radioactive sources and materials In the 1970s, accelerator-based gamma-ray radiation therapy replaced radioisotope- based devices in the United States and Western Europe. However, in much of the rest of the world, 60Co-based teletherapy units are still very common, with over 10,000 in service, according to the International Atomic Energy Agency. With an average radioactivity of 2000 curies, these devices represent a potential source of material for a radiological attack. Progress towards more compact, rugged, and reliable accelerators can replace 60Co-based sources in medicine, as well as in industrial applications. Advances in high-gradient accelerator structures, microwave generation, and power electronics could sharply reduce the cost of accelerator-based therapy. The accelerator must be able to function with high reliability in adverse environmental conditions, with fluctuating electrical supply. Because it is unlikely that private industry would undertake such a design without a defined market, deployment of this accelerator would need to be a coordinated effort among various U.S. government agencies, industry and the international community. Isotope production Accelerator production of both stable and radioactive isotopes has potential impact on security and defense. Demand for the stable helium isotope 3He has significantly increased in recent years, due to its use in neutron detectors for portal monitors and other systems for detecting special nuclear materials. The main source of 3He is as a byproduct of the nuclear weapons stockpile. Changes in stockpile management have led to decreased production, creating a need that accelerators could meet. Beyond security, researchers in low-temperature physics and materials science are suffering severely from the shortfall in 3He. Production of the medical isotope 99mTc by reactor irradiation of a nuclear material (235U) yields the same by-products as detonation of a nuclear device. As part of the Comprehensive Test Ban Treaty, monitoring stations worldwide look for telltale by-products, specifically for the radioactive isotopes of the noble gas xenon that are difficult to contain and that propagate over large distances in the atmosphere. Medical isotope production affects the sensitivity of radio-xenon measurements by producing elevated and variable concentrations over large areas around production facilities. Accelerator-based production at required volumes and competitive costs would reduce backgrounds, enhance international monitoring capabilities, and simultaneously eliminate the need for highly enriched uranium and nuclear reactor facilities for production.

#### Global nuclear war --- and causes space militarization and bioweapons use

**Johnson 1** (Rebecca, Executive Director – Acronym Institute for Disarmament Diplomacy, The Guardian, 7-17, Lexis)

Then the international arms control and non- proliferation regimes collapsed. Americans weren't bothered at first, for hadn't the government promised a super-sophisticated force field round the whole nation that no terrorist or missile would ever penetrate? So nuclear testing resumed in Nevada for new warheads to improve the kill prospects of missile interceptors and to penetrate deep into enemies' bunkers. India had been waiting for just such a go-ahead, and Pakistan soon followed; both raced to test warheads to fit on to missiles, upping the tension in Kashmir and along the borders with China. Free now to resume its own testing, China boosted its programme to modernise and increase the size of its small nuclear arsenal. Somewhat reluctantly, Russia followed. Moscow suspended all further reductions and cooperative security and safety programmes for its still-large nuclear arsenal and facilities. Within a few short years, the nuclear non-proliferation treaty was just another discarded agreement. Many governments with nuclear power programmes developed nuclear weapons as well, while others fitted anthrax or sarin on to weapons, just in case. Most hadn't wanted to, but fearful that their neighbours would, all felt compelled. Regional rivalries grew quickly into major international problems. Alliances collapsed amid suspicion and recriminations. The burgeoning arms races even spread into outer space, threatening military surveillance, as well as public communication, entertainment and navigation. No one knew who had what. Deterrence was empty, as defence analysts calculated the advantages of the pre-emptive strike. In that terrified atmosphere of insecurity and mistrust, someone launched first. And then it was too late to speak out. The Republicans hadn't yet managed to get missile defence to work. Such a doomsday scenario is notsofanciful. On July 7, the New York Times announced that President Bush wants to ditch the comprehensive test ban treaty. A week before, the administration asked nuclear laboratories to work out how quickly the US could resume testing after its nine-year moratorium. If Bush were to back out of the test ban treaty or break the moratorium on nuclear testing - undertaken with China, Russia, Britain and France - he would also explicitly breach agreements made last May, when 187 countries negotiated measures to strengthen and implement the non- proliferation treaty. The test ban is no outdated cold war instrument, but a fundamental tool to prevent new, destabilising developments in nuclear weapons. Over several decades, from the Arctic to the Pacific, from the capitals of Europe to the deserts of Nevada, people have marched, petitioned, demonstrated and even sailed or hiked into test sites. Many have been imprisoned, and some even lost their lives trying to stop the nuclear weapons governments from polluting our oceans and earth with radioactivity from nuclear explosions, conducted for one purpose only - to make "better" nuclear bombs. It took three arduous years to complete negotiations on the comprehensive test ban treaty. It isn't perfect. No product of compromise ever is. The verification system is very thorough, but it also had to be affordable, financially and politically. The treaty stopped short of closing and dismantling the known test sites or banning laboratory testing, which the weapon states said they needed to assure the safety and reliability of weapons in the stockpiles (pending achievement of their other treaty obligations to eliminate the nuclear arsenals com pletely). But it does ban all nuclear test explosions in all environments. India panicked, because the treaty would close off its nuclear options. It refused to sign, and then let off a string of nuclear explosions in May 1998. Pakistan followed, to prove it could. Even so, the treaty held. Neither government has felt able to keep testing, which means their options for further developments were curbed. Bush has embarked on a very slippery slope that could potentially put at risk the future of the citizens of even the most advanced military nation. Mumbling and grumbling won't keep us safe. It is time to speak out.

**Prolif will be slow**

**Tepperman, 2009** [Jonathan, Newsweek International's first Assistant Managing Editor (now Deputy Editor), “Why Obama Should Learn to Love the Bomb” 8-29, http://www.newsweek.com/2009/08/28/why-obama-should-learn-to-love-the-bomb.html]

The risk of an arms race—with, say, other Persian Gulf states rushing to build a bomb after Iran got one—is a bit harder to dispel. Once again, however, history is instructive. "In 64 years, the most nuclear-weapons states we've ever had is 12," says Waltz. "Now with North Korea we're at nine. That's not proliferation; that's spread at glacial pace." Nuclear weapons are so controversial and expensive that only countries that deem them absolutely critical to their survival go through the extreme trouble of acquiring them. That's why South Africa, Ukraine, Belarus, and Kazakhstan voluntarily gave theirs up in the early '90s, and why other countries like Brazil and Argentina dropped nascent programs. This doesn't guarantee that one or more of Iran's neighbors—Egypt or Saudi Arabia, say—might not still go for the bomb if Iran manages to build one. But the risks of a rapid spread are low, especially given Secretary of State Hillary Clinton's recent suggestion that the United States would extend a nuclear umbrella over the region, as Washington has over South Korea and Japan, if Iran does complete a bomb. If one or two Gulf states nonetheless decided to pursue their own weapon, that still might not be so disastrous, given the way that bombs tend to mellow behavior.

**Their impact is overstated—resilience and adaptation check**

**Farrell et al, 02 -** research engineer in the Department of Engineering and Public Policy at Carnegie Mellon University and the executive director of the Carnegie Mellon Electricity Industry Center (Alexander, “Bolstering the Security of the Electric Power System,” Issues in Science and Technology, Spring, http://www.issues.org/18.3/farrell.html)

Turning out the lights

Many terrorism scenarios involve disruption of electric service, or "turning out the lights." Whether this would allow terrorists to create widespread fear and panic is open to question. In the United States, households lose power for an average of 90 minutes per year. For the most part, individuals and society cope with these outages well, and power companies respond rapidly to restore service. Facilities that have special needs for reliability, such as hospitals and airports, typically have backup generators.

The local distribution system is the source of most outages; these affect relatively small numbers of people. The bulk power (generation and transmission) system causes only a few outages each year. In its most recent report on failures in this part of the electric power system, the North American Electricity Reliability Council (NERC) identified 58 "interruptions, unusual occurrences, demand and voltage reductions, and public appeals" in 2000. Of these events, almost half (26) were due to weather, mostly thunderstorms. Operator or maintenance errors accounted for 12 events, another 12 were due to faulty equipment, and 2 (including the largest single event) were due to forest fires. Six outages occurred simply due to failure to have sufficient power to meet demand. Not all of these 58 events caused the lights to go out, but when they did, many customers were affected. Even so, recovery was typically swift. The largest single outage in 2000 affected more than 660,000 customers in New Mexico but lasted for less than four hours.

Natural challenges of even larger scale have been met. For example, in January 1998 an ice storm struck Southern Canada and New York State, felling 1,000 transmission towers and 30,000 distribution poles while sending thousands of tree branches into power lines. This event left 1.6 million people without power, some for more than a month. Almost a quarter-million people were forced to leave their homes. Insurance claims reached about $1 billion (Canadian). This event was disruptive and costly, but it did not create terror or significant loss of life.

**Nuke threat not credible now—crushes deterrence.**

**Gerson 9** – senior fellow at CFR, was at Heritage Foundation (9/29, Michael, "Rethinking US Nuclear Posture" http://carnegieendowment.org/files/0929\_transcript\_nuclear\_posture.pdf)

On the one hand, I think you can make a case that U.S. threats, whether they’re implicit or explicit – and really what we’re talking about here is the ambiguous threat – is simply not credible. It’s not credible for a variety of reasons. I mean, one is the nuclear taboo, this moral and political aversion to using nuclear weapons that has emerged in the long absence of nuclear use and conflict. In the nuclear arena, the United States is largely seen as cool-headed, risk-averse and sensitive to casualties and collateral damage. The United States does not seem to be able to benefit from the sort of rationality of irrationality type argument. The prospect that the United States would unilaterally shatter the almost seven-decade record of non-use in conflict I think contributes to the belief that the United States would in fact not use nuclear weapons.

Another argument is I think that one could make the case that an unintended consequence of the United States first use – the United States efforts to lead to the global non-proliferation regime is that it reduces the credibility of the United States to use nuclear weapons first. If the United States spends all of this time working on the efforts to prevent others from getting nuclear weapons, it seems – it makes it less credible that the United States would risk shattering that and throwing it all away by using nuclear weapons first.

And finally, in the Gulf War, despite the threats of calculated ambiguity and the ambiguous threat of nuclear weapons, which some believe deterred Saddam, Bush, Scowcroft, Powell, and Baker, all said after the conflict that they had actually never intended on using nuclear weapons. And such public admission I think reduces the credibility of those threats.

### 1nc solvency

#### HTGR’s are infeasible – 50 years of failure proves

Steve Thomas 9, 6-22, “The demise of the pebble bed modular reactor,” Bulletin of the A.S., http://thebulletin.org/web-edition/features/the-demise-of-the-pebble-bed-modular-reactor

All the major countries involved in designing reactors, including the United States, Germany, France, Japan, and Britain, have put serious time and effort into developing high-temperature, gas-cooled reactors such as the PBMR. Despite more than 50 years of trying, however, no commercial-scale design has been produced. Yet China and South Africa have found the allure of pebble bed technology irresistible, as if it were an "unpolished gem" waiting to be developed, regardless of the consistent engineering problems it has had since the beginning. South Africa took a particularly aggressive approach, believing that it could develop a commercial-size PBMR design without even operating a prototype. If the PBMR is proved to be fundamentally flawed, as indicated in the Jülich report, South Africa's $980 million investment in the project will be seen in hindsight as wasteful, one that the country, plagued with many more pressing and basic problems, could ill afford. PBMR Ltd. is now exploring all possibilities to develop new markets for its reactor, and to collaborate on technology development, to replace the government's funding for the project that it will lose next year. For example, following its February 2009 announcement, PBMR Ltd. negotiated a technology cooperation agreement with China's PBMR developers including Tsinghua University's Institute of Nuclear and New Energy Technology and Chinergy Co. Ltd. The South African project's appalling budget and time over-runs and the company's inability to complete a finished design may scare away other potential new customers and investors, leaving China the world's largest investor in PBMR-based reactor designs.

#### The actual status of HTGR research is exactly what their ev says is necessary:

#### The House passed a budget that increases overall DOE nuclear energy funding, including reversing the proposed budget cuts in the only areas their ev establishes as important for their aff

Mike Simpson 12, U.S. Representative (R-ID), 6/6/12, “Idaho Congressman says Energy Department funding bill restores Obama Administration cuts, allows progress to continue on nuclear energy research and development;,” Congressional Documents and Publications, p. lexis

Idaho Congressman Mike Simpson today praised the work of the House Appropriations Subcommittee on Energy and Water Development in crafting a bill that reverses Obama Administration cuts to nuclear energy programs and continues progress toward the development of new nuclear technologies, including those under development at Idaho National Laboratory. Simpson is a senior member of the Subcommittee, serving as one of its members for over nine years.

"I am very pleased that the Subcommittee and the House of Representatives have once again demonstrated their support for the development of nuclear energy and provided the resources necessary to continue our nation's progress on new and promising nuclear technologies," said Congressman Simpson. "Idaho National Laboratory plays a vital national and international role in leading the development of new nuclear technologies, and this bill will help maintain and expand that role in the future. The House had to make some very difficult choices about where to focus limited taxpayer resources, and I am very grateful for the confidence my colleagues have shown for nuclear energy in this bill."

The fiscal year 2013 Energy and Water Development Appropriations bill includes $765 million for the DOE's Office of Nuclear Energy, level funding with FY2012 and $89.9 million above the Obama Administration's FY2013 request when adjusted for INL's Safeguards and Security funding. Nuclear energy research and development programs that receive funding within the $765 million allocation include:

\* The Idaho Facilities Management account, which covers infrastructure maintenance and improvement at Idaho National Laboratory, received $162 million which is $10 million above the President's request;

\* The Next Generation Nuclear Plant program, a high-temperature gas-cooled reactor designed to allow nuclear power to provide process heat for industrial applications, received $50 million which is $30 million above the President's request;

\* The Nuclear Energy Enabling Technologies program, including the Advanced Test Reactor National Scientific User Facility at the INL, received $75 million which is $9.7 million above the President's request;

\* Reactor Concepts Research, Development and Demonstration received $126 million which is $53 million above the President's request. This category includes $28.7 million for Small Modular Reactor Advanced Concepts Research and Development and $25 million for the Light Water Reactor Sustainability Program, which promotes the continued safe operation of America's existing nuclear reactors;

\* Integrated University Programs received $5 million.

In addition, the bill contains $93.35 million for Idaho National Laboratory's Safeguards and Security function which was moved out of the Office of Nuclear Energy account and into the Other Defense Activities account.

Beyond funding for the Office of Nuclear Energy, the bill includes $399.6 million for cleanup activities associated with the Idaho Cleanup Project and the Advanced Mixed Waste Treatment Project co-located on the Idaho desert with Idaho National Laboratory. The funding level of $399.6 million is level with the President's request and $14.9 million above the FY2012 funding level of $384.7 million.

Overall, the Energy and Water Development Appropriations bill provides $32.1 billion dollars for the functions of the Department of Energy, the Army Corps of Engineers, the Bureau of Reclamation and a number of independent agencies, including the Nuclear Regulatory Commission and the Bonneville Power Administration. This level of funding represents a reduction of $965 million below the President's request.

"I am pleased this bill lays out a clear, consistent and logical approach to improving our nation's energy independence by understanding the role all energy technologies play in our energy mix and by appreciating the role nuclear energy plays in particular," said Simpson. "This funding restores cuts to important reactor programs and ensures INL remains at the forefront of nuclear energy research and development both nationally and internationally."

The bill was approved today by the House of Representatives with a final vote of 255-165 and now awaits negotiations with the Senate once its bill is finalized.

## 2nc

### 2nc

#### indicts of prior tax credits are only true because they weren’t big enough and had limitations – the CP substantially increases them

**Bayman, 13** – JD Candidate, University of Oklahoma (Maxwell, “Subsidizing Advanced Nuclear Energy” 9 OKLA. J.L. & TECH. 62 (2013) http://www.law.ou.edu/sites/default/files/files/FACULTY/bayman%20version%20of%2012-12-21.pdf

Since 2009, there has been one application to build a new nuclear power plant. 210 Congress could change this and more appropriately give effect to the legislative purpose of the EPA- 2005 by providing tax incentives to expand and develop modern nuclear energy. Section 45J significantly benefits first-movers of modern nuclear energy but is fatally flawed by its limitations. 211 Congress and the President legislatively endorsed the clean energy movement by enacting legislation subsidizing production from nuclear—and renewable—sources. These subsidies should be designed with that goal in mind. Renewable energy sources are far from capable of leading the clean air revolution, though not necessarily incapable. Nuclear energy can help significantly reduce carbon and greenhouse gas emissions in the near future, by creating an effective reduction in carbon-emissions from electricity production during the renewable energy ex- pansion period. 212 A better approach, using different tax incentives, can spark the chain reaction necessary to expand nuclear development. ¶ A. Congress Should Amend Section 45J¶ The industry cannot shoulder the potential burdens and risks associated with building, operating, and dismantling a modern nuclear power plant. Historically, construction costs exceed their projected figures. 213 Section 45J started off as an extremely valuable tax incentive but because of its built-in limitations, every investor suffered as more interest in new plants grew. These limitations inherently pit industry leaders against one another and deter future investment by limiting the value of the credit for every new COL application received. The credit is unpredictable and limited to first-mover participation. Congress should amend Section 45J to allow each new investor to take advantage of the full value of the credit. ¶ 1. Remove the Application Cutoff Date¶ Although, “[i]nvestors do not want to continue with a cloud of bankruptcy hanging over their heads,” 214 the bulk of federal support needed to go forward is no longer available to new applicants. Current applicants face a Hobson’s choice of either continuing with construction knowing the value of the credit is a fraction of what it could have been, or ceasing all efforts and losing the potential business opportunity. Therefore, Congress should remove the cutoff date for eligibility under Section 45J. This would allow new investors to enter the market and take advantage of the production tax credit. Likewise, removing the cutoff date would fulfill the legislative purpose of clean energy tax credits, by increasing the amount of modern nuclear energy facilities, and reducing the creation of new coal and natural gas operated facilities. This would ultimately decrease the overall environmental impact of energy production. If Congress refuses to amend the cutoff date, there will likely be no significant development of nuclear energy because future applicants will not be eligible for the credit’s much needed subsidy. ¶ C. Amend the National Megawatt Limitation¶ Removing the cutoff date would be the first step of many to make the credit a favorable tax subsidy to future investors. However, under current law, if Congress were to permit new applicants to become eligible for the credit, the applicant pool would increase, causing the credit allocation to decrease for all other applicants. 215 It would also be necessary to contemporaneously alter the national megawatt limitation to prevent a significant reduction of the credit available to other applicants. ¶ When Congress added Section 45J to the Code, it intended to spend a maximum of $6 billion and wanted to ensure that no matter how many applicants filed for COL, the credit would never exceed this predetermined amount. 216 Recall that each qualifying facility may only claim the credit for the first eight (8) years of operations. 217 Congress should remove the national megawatt limitation and instead reduce the credit based on each separate facility. This could be accomplished by providing that each facility will be permitted a maximum credit of $100 million per year adjusted by the ratio which the reactor’s nameplate capacity bears to 1,500 megawatts for its first eight years of operations. A nuclear power plant with a 1,000 megawatt nameplate capacity is eligible for a maximum yearly credit of $66.7 million and a 1,500 megawatt reactor would qualify for the full $100 million credit. This approach benefits investors by allowing them to know the amount of the credit before commencing operations. Similarly, investors could be sure that, as new applicants enter the market, the credit will not gradually lose its value. ¶ D. Adjust the Credit Amount for Inflation¶ Congress added the production tax credit for advanced nuclear facilities to the Code in 2005. The amount of the credit contemplated at that time was subject to the value of the dollar in 2005. However, no adjustment for inflation is permitted for the 1.8 cent credit amount or maximum credit allowance. It can take years for a nuclear facility to complete the application, construction, and inspection phases before commencing operations. In fact, Congress anticipated this delay by requiring that the nuclear power plant begin construction before January 1, 2014. 218 If a modern nuclear facility commences operations before January 1, 2021, over 14 years after Section 45J was added to the Code, it will take the value of the credit without the benefit of any adjustment for inflation or, more fundamentally, it will take the value of the credit subject to the value of the dollar in 2005. Congress should permit inflation adjustments to the credit amount and maximum credit allowance to ensure an equitable value of the credit each year a taxpayer claims it. Doing so allows investors to make an inflation adjustment to the eight-cent value of the credit for every eligible year, thereby reducing any inherent loss in the time-value of the credit. ¶ E. Offer Non-Credit Tax Incentives¶ One beneficial tax incentive to modern nuclear power plants is the ability to deduct the future costs of decommissioning the plant under Section 468A. 219 Congress should consider offering other non-credit tax incentives such as a reduction of the tax rate for income from operations for a limited number of years after the nuclear power plant is placed in service. Most large electrical utility companies will generate revenues in excess of $10 million, the minimum thresh- old for imposition of the 35 percent tax rate on corporations. 220 Congress could reduce the tax rate for advanced nuclear power plants to the next lower threshold of 34 percent 221 for the duration of time the facility qualifies to take the production tax credit.¶ Conversely, Congress could elect to replace the Section 45J credit altogether, and instead reduce the corporate tax rate for a limited period of time to each qualifying facility. For instance, for the first eight years of operations, an advanced nuclear power plant would be taxed at a 25 percent rate. The benefit to investors would be the existence of a simple method of computing their tax liability by applying the reduced percentage in lieu of making the complex calculations of the Section 45J credit amount. More significantly, a reduced tax rate would not pit the IRS and nuclear power plants against each other. This is because a credit reduces the amount of tax the IRS receives based on the amount of electricity produced. As a result, the more revenue a nuclear plant earns, the less tax it will pay under the credit systems approach. In contrast, a reduced tax rate places the business interests of the nuclear power plant in line with the taxrevenue interests of the IRS. Thus, as a nuclear power plant produces more revenue, its tax liability continues to increase, which ultimately confers a benefit on both the IRS and the nuclear power plant because each will earn more income based on the performance of the plant. Since the reduced tax rate would be limited in duration to eight years, normal corporate rates will eventually apply. ¶ V. CONCLUSION¶ The increasing demand for electricity in the U.S. will require the construction of new energy plants. Because of their price competitiveness, coal and natural gas power plants are more likely to be built unless Congress creates effective incentives for investors to build nuclear power plants. As new coal and natural gas plants are built, the environment suffers an increase in carbon emissions released into the atmosphere, and more non-renewable natural resources are depleted. Nuclear energy is a safe, clean, and effective alternative. Renewable resource production of electricity is far from capable of matching the output of coal and natural gas anytime in the near future. Nuclear energy can help to displace these more damaging alternatives in the near future while renewable energy continues to develop. The EPA-2005 provides a significant step in the right direction and evidences Congress’ willingness to subsidize nuclear energy. Unfortunately, the tax incentives created by the EPA-2005 are nominal and ineffective. Congress should amend Section 45J to provide a realistic tax subsidy for nuclear energy or amend its approach altogether. With the right incentives, nuclear energy can develop and expand enough to significantly reduce carbon and greenhouse gas emissions while meeting the growing demand for electricity. Without such subsidies, nuclear power cannot survive.

#### Permanent will substantially expand investment

**Montgomery, 8** – Vice President of CRA International, directs CRA's Environment Practice. He is an internationally recognized authority in energy and environmental policy and regulation (W. David, “Developing Clean, Innovative Commercial Energy: Will Proposed Federal Subsidies Hurt or Help,” George C. Marshall Institute, 6/13,

<http://www.marshall.org/pdf/materials/607.pdf>

That suggests, then, we need to turn ourselves back to how we can create **incentives for private R&D.** To be effective, they need to be credible and they need to be immediate. If we can’t promise to reward inventors thirty years from now through the market for carbon allowances, we have to write them a check today. The question then is how the government goes about most effectively designing those programs for getting R&D to happen. The first thing is that it clearly requires commitments to incentives that are credible and irreversible. The government can’t offer incentives one year and take them away. Our current policy for dealing with R&D has some deficiencies because the tax credit for R&D, in general, is not permanent. Just making that permanent would provide a much better environment for innovation. Here we are talking about very specific incentives to try to promote climate R&D. And that is the other problem. R&D, as I said before, is a process that is very hard to predict. You don’t know exactly what it is going to produce. While in the laboratory, you may not even know what good will come of what you are doing. But you have the general idea. You can pretty much tell, if you are in a laboratory, that what you are doing is more likely to produce an efficient fuel cell or a useful biofuel than it is to produce hair restorer. So the question, in many ways, at the R&D stage is, “how does the government create incentives that push the basic research activity into directions that will produce climate benefits?”

#### The aff mechanism is a colossal failure, it only distorts investment, counterplan alone solves better

**Sutherland and Taylor, 2** - \*professor of law at George Mason University and a consulting economist AND \*\*director of natural resource studies at the Cato Institute. (Ronald and Jerry, “Time to Overhaul Federal Energy R&D,” 2/7, <http://www.cato.org/pubs/pas/pa424.pdf>

The U.S. Department of Energy is one of six large federal agencies that manage the multi-billion-dollar federal budgets for scientific research. Private markets for research and development (R&D) have some inefficiencies, termed market failures, because some of the benefits spill over to third parties that do not pay the R&D cost. Government-sponsored R&D, however, has its own set of problems. Whereas private markets underinvest in R&D programs that have a high public payoff, government overinvests in R&D programs with a low public payoff. The R&D market requires choosing between imperfect alternatives. **DOE’s** energy **programs in particular** have serious problems. First, existing public policy objectives are largely unrelated to correcting market failures. The market does not “fail” to deliver energy supply, energy efficiency, or energy security—the chief objectives of DOE’s R&D activities. Second, there is insufficient competition among potential research communities—for example, universities—to obtain DOE funding for research and scientific facilities. As a consequence, energy R&D programs are **unlikely to ever provide net benefits** to taxpayers. Third, the incentives inherent in government-managed R&D are seldom compatible with the public interest.¶ The problems surrounding existing energy R&D programs are, unfortunately, a consequence of the normal functioning of government. Accordingly, simply improving the budget process will not improve matters. Taxpayers would obtain a higher return on their R&D investments if Congress merged energy programs into a larger budget for scientific R&D or, even better, if Congress eliminated those programs altogether and established in their place tax allowances to supplement private-sector R&D.

#### No solvency deficit – DOE studies documenting success stories are politically biased and lack evidentiary support. Any successes are random chance

**Taylor, 97 –** Director of Natural Resource Studies at the Cato Institute (Jerry,Federal Document Clearing House Congressional Testimony, 4/9, lexis

In response to this near consensus about the dismal failure of publicly-funded energy R&D, the DOE has issued two documents; a May 1995 a document titled "Success Stories: The Energy Mission in the Marketplace," and Energy R&D: Shaping our Nation's Future in a competitive World, a report from a DOE-appointed task force on strategic energy R&D. 58 58 Energy R&D: Shaping our Nation's Future in a competitive World, Final Report of the Task Force on Strategic Energy Research and Development, Secretary of Energy Advisory Board, U.S. Department of Energy, June 1995.¶ The former purports to document the Department's R&D achievements which apparently have escaped the notice of both academics and dispassionate business professionals. The report details 61 technologies supported or developed by DOE's applied research program deemed "substantial economic successes" and "fundamentally important in one technical areas after another in positioning U.S. industry at the forefront of global competition." 59 Yet the report consistent of only paragraph- length discussions of each "impressive" success without any references or citations provided whatsoever. It had all the markings of a hastily put-together talking paper, not a serious product. 59 "Success Stories," p. 1.¶ Accordingly, the Congress asked the GAO to determine whether the claims made by DOE in the report were valid and whether "Success Stories" could be used to assess the value of DOE's applied R&D programs. GAO selected 15 case studies for examination (about a quarter of those listed in the report) covering all major program areas and fuel sources. More importantly, GAO chose those alleged successes that account for the bulk of the economic benefits identified in the report. GAO's findings were a scathing indictment of not only the report but the fundamental competence of the DOE itself:¶ - "We found problems with the analyses DOE used to support the benefits cited in 11 out of the 15 cases we reviewed. These problems include basic math errors, problems in supporting economic analyses, and unsupported links between the benefits cited and DOE's role or the technology. These problems make DOE's estimates of the benefits of these cases questionable." 60 60 "DOE's Success Stories Report," pp. 1-2. "While Success Stories shows that DOE's applied R&D programs do produce some benefits, it cannot be used to assess the effectiveness of DOE's applied research programs overall because it only describes the -successes' of a very small percentage of the projects DOE has funded. In addition, Success Stories does not report how much DOE spent to support any of the technologies we evaluated. Without a comparison of costs and benefits, the successes of DOE's applied energy R&D programs cannot be determined." 61 61 Ibid, p.2.¶ The math errors mentioned by GAO are truly astonishing. Two of the 15 'success stories' examined "were based on analyses containing basic math errors that greatly affected the estimates of benefits." The economic 'success" claimed for carbon dioxide sand fracture production technology, for example, "improperly applied the price of natural gas to an incorrect amount of expected increased production." Instead of $20 million of increased revenue per gas well over the course of seven years, GAO calculates the proper gain from the technology at between $216,000-$294,000 per well over seven years; a 100-fold error in DOE calculation! 62 62 Ibid, pp. 4-5.¶ Nine of the 15 cases examined contained analyses replete with "weak economic reasoning," For example, simply discounting the sales figures to reflect the time value of money reduces DOE's projected value of integrated gasification combined cycle technology over 32 years (a product of the clean coal program) from $150 billion to $44 billion (and that still takes at face value DOE's optimism regarding the marketability of the technology; most analysts consider the clean coal technology program nearly as big as bust as the notorious Synfuels program). In another example, GAO found the report assumed that the total amount of money the well-drilling industry has spent on mud-pulse telemetry technology equals the amount saved by the industry. 63 63 Ibid, p. 5.¶ In three of the cases examined, GAO also found -- not at all surprisingly -- that the benefits claimed were either not attributable to DOE or were not attributable to the technology in question. 64 64 Ibid.¶ Additionally, two points need to be made about such reports. First, there are almost certainly energy R&D projects funded by DOE that have panned out for the taxpayer and the economy as a whole. Given the thousands of such projects that have been undertaken, it would be indeed startling if not a single one ever provided net benefits to the economy. If the government simply dumped a million dollars out of an airplane, a few individuals would likely use the money to create more societal resources than what they gathered from the ground. But no sane economist would endorse a widespread policy of money dumping based on a few such It success stories." One would calculate a total cost benefit analysis before one could even begin to think along those lines.

#### R&D can’t foster leadership; other countries will free ride and overtake the US

**Sutherland and Taylor, 2** - \*professor of law at George Mason University and a consulting economist AND \*\*director of natural resource studies at the Cato Institute. (Ronald and Jerry, “Time to Overhaul Federal Energy R&D,” 2/7, <http://www.cato.org/pubs/pas/pa424.pdf>

The goal of universal scientific leadership could actually be counterproductive. Assume, for instance, that foreign countries allocate their R&D budgets where they expect to obtain the largest economic benefits. Nations that follow that strategy would gain far more economic “bang for the buck” than they would by spreading their efforts among various disciplines. Indeed, by not investing dollars in disciplines with the greatest potential for success out of some misguided attempt to lead the world in all scientific endeavors, the United States would actually harm, not help, its march toward that goal.

Moreover, scientific research, especially basic research, is subject to an international free rider problem. As a public good, the results of basic research are widely available, even to foreign countries. If one country allocates its scientific research budget between basic and applied research and another country specializes only in applied research, the second country may obtain larger economic benefits. The first country has a smaller applied research budget because it allocates part of the total scientific budget to basic research, leaving fewer funds for applied research. Each country benefits from the basic research expenditures of the first country. However, the second country benefits even further from its large applied research expenditures. By investing in scientific leadership in basic research, the U.S. may subsidize technology development in other countries and may even receive a negative rate of return on its scientific investment.

#### Federal demonstration projects empirically fail, they can’t reduce costs enough to spur adoption

**Ogden et al, 8** - senior policy analyst at the Center for American Progress (Peter, “A New Strategy to Spur Energy Innovation,” Issues in Science and Technology, Winter, <http://www.issues.org/24.2/ogden.html>

Direct federal support. The Department of Energy (DOE) is the agency that provides the most financial support for energy RD&D. Yet many of the demonstration projects undertaken by DOE since the 1970s have not been successful. Prominent examples include the Clinch River Breeder Reactor in the early 1970s; DOE-managed large-scale synthetic fuel projects such as Solvent Refined Coal; surface and in-situ shale projects; the Barstow, California, Central Solar Power Tower; and the Beulah, North Dakota, Great Plains coal gasification project.

There are many reasons why these demonstration projects failed, but three shortcomings stand out. First, the projects were based on overly optimistic engineering estimates of technological readiness and cost. Some of these difficulties could have been averted if more time had been spent gathering data from small-scale engineering development projects and more attention had been paid to modeling and simulation of process performance and economics.

Second, some of the demonstration projects met predicted levels of technical performance, but the cost was so far above the then-prevailing market prices that the projects were market failures. This was a particular problem for synthetic fuel projects. It can be avoided only if there is a clear differentiation between those projects that are intended to demonstrate technical performance, cost, and environmental effects and those that are undertaken to increase production with federal assistance or in response to federal mandates.

Third, DOE business practices differed dramatically from commercial practices, and thus its project results **were not credible demonstrations** for private industry or investors. Tight DOE budgets caused projects to be funded inefficiently, which led to stretched schedules and increased capital costs. Budget pressure also invited cost-sharing requirements that were motivated by fiscal necessity rather than fair compensation for proprietary information. In addition, federal acquisition regulations, auditing, work rules, and project management contributed to **cost overruns**.

The underlying difficulty is that DOE, and other government agencies, are not equipped with the personnel or operational freedom that would permit the agency to pursue a first-of-a-kind project in a manner **that convincingly demonstrates** the economic prospects of a new technology. A different approach is needed.

#### Utilities will ignore their projects – means no commercialization

**Apt et al, 07** – executive director of the Electricity Industry Center at Carnegie Mellon University’s Tepper School of Business and the Department of Engineering and Public Policy, where he is a Distinguished Service Professor (Jay, “Promoting Low-Carbon Electricity Production,” Issues in Science and Technology, Spring, <http://www.issues.org/23.3/apt.html>

Power plant operators are very conservative. Most of them do not count government-funded plants using advanced technology as effective demonstrations. They prefer to wait until a fellow company has operated a plant using new technology before ordering one themselves. Incentives to encourage companies to build and operate such plants can reduce the barriers to widespread adoption.

#### The impact is heg

Martino 7 – founder and chairman of the board of Cyber Technology Group, author of numerous books on finance (Rocco, A Strategy for Success: Innovation Will Renew American Leadership, <http://www.fpri.org/orbis/5102/martino.innovationamericanleadership.pdf>,)

The United States of course faced great challenges to its security and economy in the past, most obviously from Germany and Japan in the first half of the twentieth century and from the Soviet Union in the second half. Crucial to America’s ability to prevail over these past challenges was our technological and industrial leadership, and especially our ability to continuously recreate it. Indeed, the United States has been unique among great powers in its ability to keep on creating and recreating new technologies and new industries, generation after generation. Perpetual innovation and technological leadership might even be said to be the American way of maintaining primacy in world affairs. They are almost certainly what America will have to pursue in order to prevail over the contemporary challenges involving economic competitiveness and energy dependence. 

#### Technical competitiveness is key to primacy—the impact is great power war

Baru 9 - Visiting Professor at the Lee Kuan Yew School of Public Policy in Singapore (Sanjaya, “Year of the power shift?,”

http://www.india-seminar.com/2009/593/593\_sanjaya\_baru.htm

In the modern era, the idea that strong economic performance is the foundation of power was argued most persuasively by historian Paul Kennedy. ‘Victory (in war),’ Kennedy claimed, ‘has repeatedly gone to the side with more flourishing productive base.’6 Drawing attention to the interrelationships between economic wealth, technological innovation, and the ability of states to efficiently mobilize economic and technological resources for power projection and national defence, Kennedy argued that nations that were able to better combine military and economic strength scored over others.

‘The fact remains,’ Kennedy argued, ‘that all of the major shifts in the world’s *military-power* balance have followed alterations in the *productive* balances; and further, that the rising and falling of the various empires and states in the international system has been confirmed by the outcomes of the major Great Power wars, where victory has always gone to the side with the greatest material resources.’7

**I**n Kennedy’s view the geopolitical consequences of an economic crisis or even decline would be transmitted through a nation’s inability to find adequate financial resources to simultaneously sustain economic growth and military power – the classic ‘guns vs butter’ dilemma.

## 1nr

### 2nc overview

#### DA outweighs the case – Daniels says Hagel nomination is key to prevent violent military transitions that cause global nuclear conflict – the magnitude to the DA is larger

David Bosco (a senior editor at Foreign Policy magazine) July 2006 “Forum: Keeping an eye peeled for World War III” http://www.post-gazette.com/pg/06211/709477-109.stm

The understanding that small but violent acts can spark global conflagration is etched into the world's consciousness. The reverberations from Princip's shots in the summer of 1914 ultimately took the lives of more than 10 million people, shattered four empires and dragged more than two dozen countries into war. This hot summer, as the world watches the violence in the Middle East, the awareness of peace's fragility is particularly acute. The bloodshed in Lebanon appears to be part of a broader upsurge in unrest. Iraq is suffering through one of its bloodiest months since the U.S.-led invasion in 2003. Taliban militants are burning schools and attacking villages in southern Afghanistan as the United States and NATO struggle to defend that country's fragile government. Nuclear-armed India is still cleaning up the wreckage from a large terrorist attack in which it suspects militants from rival Pakistan. The world is awash in weapons, North Korea and Iran are developing nuclear capabilities, and long-range missile technology is spreading like a virus. Some see the start of a global conflict. "We're in the early stages of what I would describe as the Third World War," former House Speaker Newt Gingrich said recently. Certain religious Web sites are abuzz with talk of Armageddon. There may be as much hyperbole as prophecy in the forecasts for world war. But it's not hard to conjure ways that today's hot spots could ignite. Consider the following scenarios: Targeting Iran: As Israeli troops seek out and destroy Hezbollah forces in southern Lebanon, intelligence officials spot a shipment of longer-range Iranian missiles heading for Lebanon. The Israeli government decides to strike the convoy and Iranian nuclear facilities simultaneously. After Iran has recovered from the shock, Revolutionary Guards surging across the border into Iraq, bent on striking Israel's American allies. Governments in Syria, Jordan, Egypt and Saudi Arabia face violent street protests demanding retribution against Israel -- and they eventually yield, triggering a major regional war. Missiles away: With the world's eyes on the Middle East, North Korea's Kim Jong Il decides to continue the fireworks show he began earlier this month. But this time his brinksmanship pushes events over the brink. A missile designed to fall into the sea near Japan goes astray and hits Tokyo, killing a dozen civilians. Incensed, the United States, Japan's treaty ally, bombs North Korean missile and nuclear sites. North Korean artillery batteries fire on Seoul, and South Korean and U.S. troops respond. Meanwhile, Chinese troops cross the border from the north to stem the flow of desperate refugees just as U.S. troops advance from the south. Suddenly, the world's superpower and the newest great power are nose to nose. Loose nukes: Al-Qaida has had Pakistani President Pervez Musharraf in its sights for years, and the organization finally gets its man. Pakistan descends into chaos as militants roam the streets and the army struggles to restore order. India decides to exploit the vacuum and punish the Kashmir-based militants it blames for the recent Mumbai railway bombings. Meanwhile, U.S. special operations forces sent to secure Pakistani nuclear facilities face off against an angry mob. The empire strikes back: Pressure for democratic reform erupts in autocratic Belarus. As protesters mass outside the parliament in Minsk, president Alexander Lukashenko requests Russian support. After protesters are beaten and killed, they appeal for help, and neighboring Poland -- a NATO member with bitter memories of Soviet repression -- launches a humanitarian mission to shelter the regime's opponents. Polish and Russian troops clash, and a confrontation with NATO looms. As in the run-up to other wars, there is today more than enough tinder lying around to spark a great power conflict. The question is how effective the major powers have become at managing regional conflicts and preventing them from escalating. After two world wars and the decades-long Cold War, what has the world learned about managing conflict? The end of the Cold War had the salutary effect of dialing down many regional conflicts. In the 1960s and 1970s, every crisis in the Middle East had the potential to draw in the superpowers in defense of their respective client states. The rest of the world was also part of the Cold War chessboard. Compare the almost invisible U.N. peacekeeping mission in Congo today to the deeply controversial mission there in the early 1960s. (The Soviets were convinced that the U.N. mission was supporting a U.S. puppet, and Russian diplomats stormed out of several Security Council meetings in protest.) From Angola to Afghanistan, nearly every Cold War conflict was a proxy war. Now, many local crises can be handed off to the humanitarians or simply ignored. But the end of the bipolar world has a downside. In the old days, the two competing superpowers sometimes reined in bellicose client states out of fear that regional conflicts would escalate. Which of the major powers today can claim to have such influence over Tehran or Pyongyang? Today's world has one great advantage: None of the leading powers appears determined to reorder international affairs as Germany was before both world wars and as Japan was in the years before World War II. True, China is a rapidly rising power -- an often destabilizing phenomenon in international relations -- but it appears inclined to focus on economic growth rather than military conquest (with the possible exception of Taiwan). Russia is resentful about its fall from superpower status, but it also seems reconciled to U.S. military dominance and more interested in tapping its massive oil and gas reserves than in rebuilding its decrepit military. Indeed, U.S. military superiority seems to be a key to global stability. Some theories of international relations predict that other major powers will eventually band together to challenge American might, but it's hard to find much evidence of such behavior. The United States, after all, invaded Iraq without U.N. approval and yet there was not even a hint that France, Russia or China would respond militarily. There is another factor working in favor of great-power caution: nuclear weapons. Europe's leaders on the eve of World War I can perhaps be forgiven for not understanding the carnage they were about to unleash. That generation grew up in a world of short wars that did limited damage. Leaders today should have no such illusions. The installation of emergency hot lines between national capitals was a recognition of the need for fast and clear communication in times of crisis. Diplomatic tools have advanced too. Sluggish though it may be, the U.N. Security Council regularly gathers the great powers' representatives in a room to hash out developing crises. So there is reason to hope that the major powers have little interest in playing with fire and the tools to stamp it out. But complacency is dangerous. The British economist Norman Angell once argued persuasively that deep economic links made conflict between the great powers obsolete. His book appeared in 1910 and was still in shops when Europe's armies poured across their borders in 1914.

#### Hagel’s key to foreign policy restraint that prevents unsustainable squandering of U.S. power---the alternative is Flournoy who would lock in a neocon foreign policy

Kelley Beaucar Vlahos 12-25, longtime political reporter for FoxNews.com and a contributing editor at The American Conservative, Washington correspondent for Homeland Security Today magazine, 12/25/12, “Give Us Chuck Hagel for Christmas,” <http://original.antiwar.com/vlahos/2012/12/24/give-us-hagel-for-christmas/>

Now a Democratic President is reportedly mulling him for defense secretary and the same Republican automatons and neoconservative harpies are pulling no punches to thwart it. They complain about his allegedly insufficient support of Israel (massaged, cajoled and translated for full-effect into charges of anti-Semitism), driven in part by his unwillingness to impose harsh economic sanctions or use of force against Iran. He also voted against designating Hezbollah a terrorist organization, and has encouraged open relations with Hamas in hopes of reanimating the corpse of the Middle East pace process. Furthermore, Hagel’s flagrant disdain for the runaway MIC (military industrial complex), preemptive war, and senseless foreign occupation is such an aberration to the Washington establishment that when the bunker busters in Congress, American Israel supporters and rightwing 101st Keyboard Brigade heard he might be nominated, their attack was so immediate and vicious it’ll likely serve as a model for smear efficiency for years to come. If the U.S. Army had deployed these superlative tactics in say, Afghanistan, they might have actually won the so-called “war of perception” over the Taliban 10 years ago. Too bad most of Hagel’s critics prefer calling the shots from over here, rather than putting their rear-ends in harm’s way over there. The War Against Hagel has hardly been decisive, however, at least as we near the end of the year, leaving some space for his supporters to mount a proper defense, which of this writing, is increasingly vigorous. There seems to be a common theme to every blog post and op-ed penned for his purpose: the man is a welcome independent thinker in the Era of the Borg — and he’s no phony, else he would have safely buzzed off with the rest of the political hive long ago. The Atlantic’s Jeffrey Goldberg, usually quite scornful of Realist foreign policy arguments — especially concerning Iran — said Thursday he worries about rightwing developments in Israel even more than Hagel’s purportedly soft approach on Iran, and suggested quite baldy that Hagel’s independence would be a help not a hindrance where it counts: What we need are American officials who will speak with disconcerting bluntness to Israel about the choices it is making…Maybe the time has come to redefine the term “pro-Israel” to include, in addition to providing support against Iran (a noble cause); help with the Iron Dome system (also a noble cause); and support to maintain Israel’s qualitative military edge (ditto), the straightest of straight talk about Israel’s self-destructive policies on the West Bank. Maybe Hagel, who is not bound to old models, could be useful in this regard. Many of us see Hagel’s impact in much broader terms than just the Israel question. We’ve had too many armchair generals and dutiful yes men at the levers of power, cleaving to an unsustainable post-9/11 orthodoxy that has militarized our foreign policy and politicized our military. The neoconservatism of the Bush years has bled literally into the so-called humanitarian interventionism of the Obama era, and for the first time, there is an opportunity to check that with the presence of a known Realist who, as Harvard’s Stephen Walt says, is “opposed to squandering U.S. power, prestige, and wealth on misbegotten crusades,” and is immune to the “threat inflation” both sides routinely engage in to justify lining the pockets of the defense industry. After nearly 12 years of constant war, Hagel’s references to Iraq and Afghanistan as a meat grinder to which we’ve wastefully sent too many of our own children, and his belief that he is the “the real conservative” because he actually calls for restraint, should be a refreshing prospect, and not feared by Americans conditioned to accept there is a military solution for every problem. “In a town dominated by often-unexamined conventional wisdom, the appointment of Hagel to DoD would be a welcome relief,” wrote Michael Cohen for The Guardian last week. Reached on the phone, Cohen told me that Hagel would be a “transformational pick,” but acknowledged that the challenges loom large for a non-conformist now squared against not only members of his own party, but neoconservatives wielding their “long knives,” and the pro-war wing of the Democratic establishment, too. “Look, he is not one of them,” Cohen said, “he’s not a neoconservative nor a liberal hawk, he thinks there should be limits on American power.” Although President Obama has, so far, not said a word about Hagel, the former senator who quietly spent the last four years chairing the moderate Atlantic Council, is enjoying an enthusiastic defense from myriad commentators across the mainstream, including Andrew Sullivan, Steve Clemons, Peter Beinart — even Jim Judis at The New Republic. Several ambassadors — including Bush-era Nick Burns and Ryan Crocker and three Israel representatives — signed on to a letter encouraging his nomination. Meanwhile, The National Journal and The Washington Post have published biographical sketches emphasizing Hagel’s Vietnam War record and its impact on his post-war career and personal philosophy (this hardly makes up, however, for the Post’s incoherent broadside published by its editorial page on Dec. 19). And of course, The American Conservative’s Daniel Larison and Scott McConnell, not to mention our own Justin Raimondo, are astutely swatting away the haters at every turn of this increasingly torrid offensive. Michele Flournoy But while many of us here at Antiwar would like a Hagel nomination for Christmas, the biggest concern (aside from his Swift Boating) is that we might find Michele Flournoy under the tree instead. For those who never heard of her, she founded the Center for a New American Security in 2007 in anticipation of a new Democratic White House. The think tank was designed to promote a more muscular Democratic military policy, which meant its top people supported Hillary Clinton for president as well as the U.S. counterinsurgency in Iraq, and then Afghanistan, known then as the Petraeus Doctrine. Once Obama won, it became the go-to policy shop for the White House and a revolving door to the Pentagon and State Department for its senior fellows. Flournoy went on to take Doug Feith’s position as Undersecretary of Defense for Policy, the No. 3 job at the Pentagon. What she actually did in the fabled “E-Ring” to advance policy or to help extricate the military from an increasingly disastrous war in Afghanistan, is anyone’s guess. But the “hot policy wonk” and top COINdinista apparently made all the right friends and greased all the right skids, and is now the favored pick by the neocons, who see a kindred soul where Hagel is just heartburn ready to happen. So buttressed is Flournoy by the Washington elite that people like Paul Wolfowitz, who in all reality should be ignored completely for his role in one of the worst war blunders in American history, are rolling out to defend her (in Wolfowitz’s case, maybe he should have cooled his wheels at home). After admitting he’s “not deeply familiar with Michele Flournoy’s record at the Defense Department or with her overall qualifications to be Secretary of Defense,” he says the fact 3,500 Afghan security forces have died this year (compared to 307 Americans) is proof enough she knows what she is doing. I say it’s proof enough that nothing has really changed since the Bush administration, except there are more troops in Afghanistan now (about 68,000) and the U.S. casualty count was much lower then —- 117 in 2007 to be exact. When liberal flak Eleanor Clift wrote about the prospects of the “first female defense secretary” back in November, all she could muster in her favor was Flournoy’s Oxford pedigree, a stint in the lackluster Clinton Pentagon policy shop and quotes like these from former colleagues: “she has spent a great deal of time thinking how to deploy our military instruments economically and effectively.” Glad she was thinking about it before she left her post in February. Not much came out of if, however, if today’s accounts of continuing bloat, waste and mission creep are any indication. Frankly, one hears a lot about Flournoy the “team player” but very little about her vision, ideas or actual accomplishments. The fact is, “the team” has been on a losing streak in Afghanistan since Obama took office, while her think tank, of which she continues to serve on the board of directors, has reaped all the benefits and influence as a conduit between the Pentagon, Foggy Bottom, the White House and greedy defense industry. “She’s a safe pick, she will carry the water — if you pick Hagel it would be saying ‘I want to push the envelope a little bit on foreign policy,’” said Cohen, “pushing it in a more realist direction than we have in the past.” Perhaps that is why so many of us here are excited about the prospect. There are some areas where Hagel and the readers on this page might diverge, particularly on domestic issues. He’s a solid pro-life social conservative. He voted for the Patriot Act (he later fought for broader constitutional safeguards, saying he took an oath to protect the constitution, not “an oath of office to my party or my president”). We don’t know yet where he would stand on the controversial detention provisions in the National Defense Authorization Act (NDAA). We have no idea whether he would stanch the flow of U.S. personnel and weapons into Africa or how he would deal with a newly inherited drone war. As for the Pentagon labyrinth itself, as University of Texas professor (and expert COIN critic) Celeste Ward Gventer tells me, “the problems are systemic and largely exceed the decision or personality of one man, even if he is at the apex.” Still, if a Flournoy pick would signal an endorsement of the status quo, a Hagel nod would serve to challenge it. This inclination to question policy is quite attractive to observers like us who are tired of living in a fake candy cane marshmallow bubble world when it comes to foreign policy and national security. As a senator, Hagel often addressed these issues realistically, with no regard to how it might hurt his chances for a presidential nomination, which turned out to be short-lived as a result (quite sad, considering the parade of ham-n-egger Republicans who ended up running, and losing, in the last two elections)

#### Restraint’s key to prevent war with Russia and China---defuses Georgia, Taiwan and the South China Seas

Paul K. MacDonald 11, Assistant Professor of Political Science at Williams College, and Joseph M. Parent, Assistant Professor of Political Science at the University of Miami, November/December 2011, “The Wisdom of Retrenchment: America Must Cut Back to Move Forward,” Foreign Affairs, Vol. 90, No. 6

Curbing the United States' commitments would reduce risks, but it cannot eliminate them. Adversaries may fill regional power vacuums, and allies will never behave exactly as Washington would prefer. Yet those costs would be outweighed by the concrete benefits of pulling back. A focus on the United States' core interests in western Europe would limit the risk of catastrophic clashes with Russia over ethnic enclaves in Georgia or Moldova by allowing the United States to avoid commitments it would be unwise to honor. By narrowing its commitments in Asia, the United States could lessen the likelihood of conflict over issues such as the status of Taiwan or competing maritime claims in the South China Sea. Just as the United Kingdom tempered its commitments and accommodated U.S. interests in the Western Hemisphere at the turn of the last century, the United States should now temper its commitments and cultivate a lasting compromise with China over Taiwan.

### 2nc yes hagel

#### Hagel will be confirmed but it’s a fight---Obama’s clearing the agenda of other issues

Julie Pace 1-7, AP White House Correspondent, 1/7/13, “Obama digs in for a fight on Hagel, Brennan picks,” http://www.mercurynews.com/breaking-news/ci\_22324209/obama-nominate-chuck-hagel-defense-secretary

Digging in for a fight, President Barack Obama riled Senate Republicans and some Democrats, too, on Monday by nominating former senator and combat veteran Chuck Hagel to lead the Pentagon and anti-terrorism chief John Brennan as the next director of the Central Intelligence Agency.¶ Hagel and Brennan, in separate Senate confirmation hearings, will face sharp questions on a range of contentious issues, including U.S. policy about Israel and Iran, targeted drone attacks and harsh interrogation tactics. Of the two men, Hagel is expected to face a tougher path, though both are likely to be confirmed.¶ Hagel would be the first enlisted soldier and first Vietnam veteran to head the Pentagon.¶ "These two leaders have dedicated their lives to protecting our country," Obama said, standing alongside them and the men they would succeed during a ceremony in the White House East Room. "I urge the Senate to confirm them as soon as possible so we can keep our nation secure and the American people safe."¶ For Obama, a pair of combative confirmation hearings could turn into a distraction as he opens his second term. But the president signaled he was ready to take that risk.

#### nomination now—polcap and unity key

Wall Street Journal 1/6, 2013 “White House to Go on Offense for Hagel Pick” http://online.wsj.com/article/SB10001424127887323482504578225532918927080.html

Those officials acknowledge they have a bruising confirmation fight ahead. They also say they are confident they will prevail because Republicans ultimately won't be able to topple a former colleague, a Vietnam veteran and a two-term GOP senator from Nebraska who served on the foreign relations and intelligence committees. Mr. Obama also may announce his nominee to head the Central Intelligence Agency, a position left vacant when David Petraeus resigned last year after admitting to an affair. The two leading candidates for the post are White House counterterrorism chief John Brennan and acting CIA Director Michael Morell. Republican lawmakers on Sunday stepped up their opposition to Mr. Hagel, who initially voted for the Iraq war but grew to oppose it and who supported Mr. Obama for president in 2008. Critics also have cited Mr. Hagel's past criticisms of Israel as a basis for their opposition. Sen. Lindsay Graham (R., S.C.) said Sunday on CNN that it would "probably be a bridge too far" for him to support Mr. Hagel. Mr. Hagel's foreign policy views, he said, are "outside the mainstream," and he would be "the most antagonistic secretary of defense towards the state of Israel in our nation's history." Other Republicans, such as Sen. Ted Cruz (R., Texas), cited what they see as a leniency on Iran and a past reluctance to impose sanctions on Tehran as reasons for their opposition. "He has consistently advocated weakness with respect to our enemies, with respect to the nation of Iran," Mr. Cruz said on Fox. "Weakness in a secretary of defense invites conflict, because bullies don't respect weakness." Mr. Hagel's backers say he will respond to charges he isn't sufficiently supportive of Israel by pointing to votes he made in the Senate for a total of $38 billion in aid for the Jewish state, along with multiple trips to meet with leaders there. Mr. Hagel, said a person close to the decision-making process, believes in America's "special relationship" with Israel, but also believes that relationship enables officials from both governments to "speak frankly" with each other. Regarding Iran, Mr. Hagel voted at least three times for sanctions and is a supporter of multilateral sanctions, the person said, adding that Mr. Hagel has opposed some sanctioning based on specific details, not a broader opposition to sanctions. Mr. Hagel believes that military action should always be an option but, based on his war experience, believes it should only be seriously considered after diplomatic options are exhausted, this person said. The month long lag between the initial floating of Mr. Hagel's name for the post and Monday's expected announcement has provided opponents with ample oxygen for a strong fight. While a number of former high-ranking national-security officials have voiced support, backers on Capitol Hill were reluctant to campaign hard for someone who had yet to be nominated, said one person close to the process. The Republican National Committee also joined the fray Sunday, firing its initial shots against Mr. Hagel and indicating the opposition is increasingly organized. Mr. Hagel already has been openly criticized on the airwaves by the Emergency Committee for Israel, an issue-advocacy group that criticized Democrats during the 2012 campaign. Opponents also have been quick to circulate additional ammunition for their cause, such as an Iranian PressTV report Sunday headlined, "Obama expected to nominate anti-Israel Hagel as secretary of defense." One of the chief reasons Mr. Obama chose Mr. Hagel is his willingness to buck his own party in opposing the Iraq war, a senior administration official said. The position plays well to Democrats, some of whom have been critical of his potential nomination. Mr. Hagel's views on Afghanistan and the drawdown of troops there also dovetail with Mr. Obama's, and overseeing the final phases of the war may be the most important task the next secretary of defense faces. It was vital to Mr. Obama that he have someone in that position whose views are aligned with his own on Afghanistan. Another key reason Mr. Obama is willing to spend political capital on Mr. Hagel is the president wants a Republican in his cabinet, said the person familiar with the process, and there are few open positions to fulfill that goal. Defense has been a problematic area for Democratic presidents, and the White House feels Mr. Obama benefited from initially having Robert Gates, a Republican, in the slot because it gave him some political cover with GOP critics. Mr. Obama is less likely to back down in the face of opposition to Mr. Hagel after losing the nomination of U.N. Ambassador Susan Rice, who withdrew from consideration for secretary of state in the wake of GOP criticism. The White House plans to push back by casting Mr. Hagel as a decorated war hero with two Purple Hearts and underscoring that he would be the first enlisted military member to run the Defense Department. Crucial for Mr. Hagel's nomination will be the extent to which Democrats back him to offset Republican criticism. The White House intends to make clear Mr. Hagel apologized for a comment he made opposing an openly gay ambassador nominee about a decade ago. Officials also will stress the president is confident that Mr. Hagel will complete the implementation of the repeal of "don't ask, don't tell," the policy banning gays from serving openly in the military. A senior administration official said Mr. Obama would not have chosen Mr. Hagel unless he had been assured he would see through the implementation of "don't ask, don't tell." The White House also intends to push back against critics of Mr. Hagel's positions on Iran and Israel by stressing that he will be responsible for carrying out the president's policies. Supporters of Mr. Hagel noted Sunday that the top Republican in the Senate, Sen. Mitch McConnell (R., Ky.) refused to voice opposition to Mr. Hagel, whose national-security expertise he has praised in the past. "I'm going to wait and see how the hearings go and see whether Chuck's views square with the job he would be nominated to do," Mr. McConnell said on ABC, where he pledged Mr. Hagel would receive "a fair hearing" from Senate Republicans. Still, marshaling the votes to back the controversial nominee will not be easy. A senior Republican aide on Capitol Hill said he didn't think Mr. Hagel would garner much Republican support and predicted as many as 15 to 20 Democrats would have difficulty voting for him, especially those who are facing re-election in 2014 and worry about upsetting the powerful pro-Israel lobby. Democrats and their independent allies hold 55 seats in the new Senate. Administration officials said they believe they can gain majority support, and they don't think that Republicans would go so far as to block consideration of the nomination entirely.

### at: gay rights opposition

#### Gay rights groups are backing off and fully supporting Hagel

Aliyah Frumin (writer for MSNBC) January 8, 2013 “Are gay rights groups warming up to Chuck Hagel?” http://tv.msnbc.com/2013/01/08/are-gay-rights-groups-warming-up-to-chuck-hagel/

At the time, the moderate Republican senator from Nebraska criticized Hormel for being “openly aggressively gay” and questioned his ability to do an “effective job.” Hagel has since apologized for the remarks, insisting they were “insensitive.” He also said he was in favor of gay Americans serving openly in the military—something he once opposed, at the time insisting that “the U.S. armed forces aren’t some social experiment.” The turnabout has left many speculating whether Hagel’s views have truly evolved or if he’s just talking the talk to get back to D.C. Some of Hagel’s fiercest critics, at least, have accepted his apology in recent days and have gone as far to offer him a full-throttled endorsement. Just last week, former Congressman Barney Frank said he was “strongly opposed” to Hagel’s appointment because of his remarks about Hormel. But in an interview Monday with the Boston Globe, the openly gay Democrat said “with the attack coming out of the right, I hope he gets confirmed.” Frank said he supported Hagel’s positions on the military and the war in Afghanistan—two issues that could suffer setbacks if he doesn’t get the post. And then there’s the Human Rights Campaign, the largest LGBT equality–rights advocacy group in the country, which has also changed its tune. Following Hagel’s apology, HRC —which previously gave Hagel low marks during his tenure in the Senate and said Hagel’s comments about Hormel were “unacceptable”—now supports Obama’s nominee. “Senator Hagel’s apology and his statement of support for LGBT equality is appreciated and shows just how far as a country we have come when a conservative former Senator from Nebraska can have a change of heart on LGBT issues,” HRC President Chad Griffin said in a statement. “Our community continues to add allies to our ranks and we’re proud that Senator Hagel is one of them.”

### 2nc top priority

#### Hagel nomination fights will happen BEFORE the debt ceiling

NJN (New Jersey News) 1/6, 2013 “Hagel takes fire from Hill” http://www.nj.com/us-politics/index.ssf/2013/01/hagel\_takes\_fire\_from\_hill.html

Senate Democrats and Republicans are far from sold on President Barack Obama's expected nomination of Chuck Hagel as secretary of defense. In fact, Obama's decision to tap the Vietnam veteran and outspoken former Republican senator is likely to spark another nasty fight with Congress right on the heels of the fiscal cliff showdown and just before another likely battle royal over the debt ceiling.

#### Crowds out every other issue

Jennifer Rubin (writer for the Washington Post) 1/6, 2013 “The Hagel litmus test” http://www.washingtonpost.com/blogs/right-turn/wp/2013/01/06/the-hagel-litmus-test/

Unlike the Democratic Party, support for the U.S.-Israel relationship has become a positive litmus test for national office in the GOP, in large part due to the intensely pro-Israel Christian conservatives. The opposition to Hagel will be fierce. At the very least the battle will potentially suck up much of the oxygen in the Senate, put other issues like gun control on hold and threaten to become the blockbuster hearing of the Obama presidency as the Judge Robert Bork hearing was in the Reagan administration.

#### Hagel confirmation will drain all PC from the rest of his agenda

Ryan Lizza (writer for The New Yorker) 1/7, 2013 “Will Hagel Spike the G.O.P.’s Fever?” http://www.newyorker.com/online/blogs/newsdesk/2013/01/how-much-will-the-nomination-of-chuck-hagel-hurt-obamas-second-term-agenda.html

The fiscal-cliff bill passed the House only when Speaker John Boehner’s members realized that their only alternative was blowing up the settlement negotiated by Joe Biden and Mitch McConnell—and accepting all the blame and consequences. That episode offers the White House a general template for the coming fights over spending, immigration, and gun control—three issues where there is very little consensus between Obama and most House Republicans. Deals will have to be negotiated in the Senate and gain the imprimatur of some high-profile Republicans. Then a pressure campaign will have to be mounted to convince Boehner to move the legislation to the floor of the House under rules that allow it to pass with mostly Democratic votes. It’s easier to see how this could happen with the coming budgetary issues, which have deadlines that force action, than for the rest of Obama’s agenda, which is more likely than not to simply die in the House. There simply isn’t much common ground between Obama and most House Republicans on the agenda he’s chosen. On every front, Obama is challenging the G.O.P.’s most intransigent interest groups. He’s taking on the anti-tax activists who have controlled Republican economic thinking for decades. He’s taking on the Republicans’ Tea Party base over immigration, an issue that polls (and the Republican Presidential primaries) have shown to be more intense than almost any other for grassroots conservatives. He’s taking on the previously untouchable National Rifle Association with his coming proposals to regulate firearms. And with today’s nomination of Hagel, Obama will open a new front against Republican neoconservatives, who control foreign policy in the G.O.P. It’s doubtful that the votes to defeat Hagel will materialize in the Senate, but a President’s political capital, especially in a second term, depletes quickly after his election. Even if Obama prevails, the Hagel fight will have a cost to the rest of his agenda.

### xt polcap up

#### PC now unless he squanders it

The Southland Times 12/27, 2012 “After 2012, what lies ahead?” Lexis

The Republican candidate concentrated his campaign on Obama's slow progress in overcoming the deepest recession in 70 years (which had been caused by the previous Republican administration), but just in time the numbers started to turn upwards for Obama. The economic recovery will probably strengthen in the coming year, unless the US falls off the fiscal cliff in the next week or so, and strong growth will give Obama enough political capital to undertake at least one big reform project. The highest priority is obviously global warming, but there is a danger that he will fritter his resources away on hot- button issues like gun control.

**Capital’s finite—they assume demand to leverage**

**Gerson, 12/17** (Michael, 12/17/10, Washington Post, “When it comes to politics, Obama's ego keeps getting in the way,” http://www.washingtonpost.com/wp-dyn/content/article/2010/12/16/AR2010121604039.html)

In some areas - such as education reform or the tax deal - Obama's governing practice is better than his political skills. But these skills matter precisely because **political capital is limited**. The early pursuit of ambitious health-care reform was a political mistake, as former chief of staff Rahm Emanuel internally argued. But every president has the right to spend his popularity on what he regards as matters of principle. Political risks, taken out of conviction with open eyes, are an admirable element of leadership.

Yet political errors made out of pique or poor planning undermine the possibility of achievement. Rather than being spent, popularity is squandered - something the Obama administration has often done.

### 2nc polcap key

#### Every ounce of political capital is key to getting Hagel across the finish line

Scott Wong and Manu Raju (writers for Politico) 1/6, 2013 “Chuck Hagel takes fire from Capitol Hill” http://www.politico.com/story/2013/01/chuck-hagel-takes-fire-from-capitol-hill-85805.html?hp=t1

And despite heaping praise on Hagel when he retired from the Senate after the 2008 elections, Minority Leader Mitch McConnell (R-Ky.) on Sunday failed to extend an olive branch to the Nebraska Republican, instead suggesting there would be “tough questions” ahead. Even Senate Democrats are privately signaling they‘re not yet on board with the Hagel pick, and that the White House has a lot of work to do to get him across the finish line. The nomination comes at a tricky time for the White House — just as the fights over raising the debt ceiling and government appropriations are set to begin. And it could put a number of at-risk or pro-Israel Democrats in tough political spots — especially if the nomination fight grows even more contentious. Democrats are also scratching their heads over why Obama appears willing to go to the mat for Hagel, while abandoning his push for a close friend and member of his inner circle, U.N. Ambassador Susan Rice, to become secretary of state. Rice, an unabashed Democrat, abandoned her bid after withering GOP criticism over the deadly attacks on the U.S. consulate in Libya. Though different in substance, the controversy over Rice’s remarks is not unlike the current pushback over Hagel’s past foreign policy positions and controversial remarks. “It is a strange signal for the White House to send that they are willing to fight for Hagel but not Rice,” one Senate Democratic aide said Sunday. “Democrats are not currently unified behind Hagel, and it will take some real work by the administration to get them there, if it’s even possible.” Senior Republicans agreed, noting that after Hagel infuriated Republicans and Democrats alike over the years, there isn’t a natural base for him. “I can’t imagine why [Obama] would choose to burn his political capital on this nomination. For what? There is no constituency for Chuck Hagel,” said one senior GOP aide. “Obama will expend every ounce of political capital he has to get him across the finish line. Dems will hate this.”

#### Lack of Obama PC to drum up support guarantees the Israel lobby will force him out – historically proven

James Wall (Contributing Editor of The Christian Century magazine) 12/26, 2012 “Hagel Defenders Battle Neocon Opposition” http://www.opednews.com/articles/1/Hagel-Defenders-Battle-Neo-by-James-Wall-121226-757.html

The Washington Post wrote in a lead editorial, December 18, that President Obama should not nominate former Nebraska Senator Chuck Hagel as his Defense Secretary because the President "has available other possible nominees who are considerably closer to the mainstream and to the president's first-term policies." Daily Beast columnist Andrew Sullivan responded to the Post editorial in his best high dudgeon fashion: "Considerably closer to the mainstream... is not a good thing if the mainstream (including the Washington Post) led us to endless, pointless, fruitless occupations and wars that have deeply wounded American credibility and credit, as well as costing up to a hundred thousand innocent lives? We need less mainstream thought in Washington, not more." The Post editorial reads like a set of instructions to a pro-Israel media/political hit squad on how to block Hagel as Obama's nominee for Defense Secretary. Is Hagel doomed to suffer the Charles Freeman treatment? Freeman, an experienced diplomat, had displayed the same independence from Zionist pressure that Chuck Hagel has shown. When Freeman was initially chosen by the new Obama administration in 2009 to serve as Chairman of the National Intelligence Council (NIC), the neocons swung into action. Politicians and media voices painted Freeman, unfairly, as a danger to Israel. The White House did little to rally support for Freeman, who soon agreed to withdraw his name, though not without some strong words about the machinations of the Israel Lobby. When Barack Obama hit his first term neocon stone wall, he capitulated. In a new essay for Consortium News, Freeman recalls his earlier experience, noting that: "The tactics of the Israel Lobby plumb the depths of dishonor and indecency and include character assassination, selective misquotation, the willful distortion of the record, the fabrication of falsehoods, and an utter disregard for the truth." Today, a second term awaits Obama. Once again the White House has floated a name that was bound to arouse opposition from the neocons. What will Obama do this time? Thus far, the White House appears to have left Hagel to the mercy of his opponents. Unlike Freeman, however, Hagel has begun to hear sounds of support, with the widely read Andrew Sullivan leading a growing media/political support effort for Hagel. Is some of this support generated behind the scenes from the White House? Possibly.

**Yes vote switching—even due to unrelated legislation**

**Simes and Saunders 2010** – \*publisher of the National Interest, \*\*Executive Director of The Nixon Center and Associate Publisher of The National Interest, served in the State Department from 2003 to 2005 (12/23, Dimitri and Paul, National Interest, “START of a Pyrrhic Victory?”, http://nationalinterest.org/commentary/start-pyrrhic-victory-4626, WEA)

Had the lame-duck session not already been so contentious, this need not have been a particular problem. Several Senate Republicans indicated openness to supporting the treaty earlier in the session, including Senator Lindsey Graham and Senator John McCain. Senator Jon Kyl—seen by many as leading Republican opposition to the agreement—was actually quite careful to avoid saying that he opposed New START until almost immediately prior to the vote. Our own conversations with Republican Senate sources during the lame duck session suggested that several additional Republicans could have voted to ratify New START under other circumstances; Senator Lamar Alexander is quoted in the press as saying that **Republican anger over unrelated legislation cost** five to ten **votes**. By the time the Senate reached New START, earlier conduct by Senate Democrats and the White House had alienated many Republicans who could have voted for the treaty.

That the administration secured thirteen Republican votes (including some from retiring Senators) for the treaty now—and had many more potentially within its grasp—makes clear what many had believed all along: it would not have been so difficult for President Obama to win the fourteen Republican votes needed for ratification in the new Senate, if he had been prepared to wait and to work more cooperatively with Senate Republicans. Senator Kerry’s comment that “70 votes is yesterday’s 95” ignores the reality that he and the White House could have secured many more than 70 votes had they handled the process differently and attempts to shift the blame for the low vote count onto Republicans.

### at: doe smr grants

#### grants haven’t been appropriated by Congress yet

Jeffrey Tomich 12, energy and environment reporter for the St. Louis Post-Dispatch, 4/25/12, “Small nuclear reactors generate hype, questions about cost,” http://www.stltoday.com/business/local/small-nuclear-reactors-generate-hype-questions-about-cost/article\_39757dba-8e5c-11e1-9883-001a4bcf6878.html#ixzz1tTlcQ1Jt

Last month, Obama proposed $452 million to help speed up development of small modular reactors. The funding availability would come on top of $8 billion in loan guarantees for the Vogtle twin-reactor nuclear project in Georgia.

The federal funding, which has yet to be appropriated by Congress, would support engineering, design certification and licensing of up to two plant designs that have the potential to be licensed and in commercial operation in a decade.

#### The administration hasn’t announced the recipients or begun handing out grants precisely because of the link to politics

Gabriel Nelson 9-24, E&E Reporter, and Hannah Northey, 9/24/12, “DOE funding for small reactors languishes as parties clash on debt,” http://www.eenews.net/public/Greenwire/2012/09/24/3

DOE received four bids before the May 21 deadline from veteran reactor designers Westinghouse Electric Co. and Babcock & Wilcox Co., as well as relative newcomers Holtec International Inc. and NuScale Power LLC. Now the summer has ended with no announcement from DOE, even though the agency said it would name the winners two months ago.

As the self-imposed deadline passed, companies started hearing murmurs that a decision could come in September, or perhaps at the end of the year. To observers within the industry, it seems that election-year calculations may have sidelined the contest.

"The rumors are a'flying," said Paul Genoa, director of policy development at the Nuclear Energy Institute, in an interview last week. "All we can imagine is that this is now caught up in politics, and the campaign has to decide whether these things are good for them to announce, and how."

Small modular reactors do not seem to be lacking in political support. The nuclear lobby has historically courted both Democrats and Republicans and still sees itself as being in a strong position with key appropriators on both sides of the aisle.

Likewise, top energy officials in the Obama administration have hailed the promise of the new reactors, and they haven't shown any signs of a change of heart. DOE spokeswoman Jen Stutsman said last week that the department is still reviewing applications, but she did not say when a decision will be made.

"This is an important multiyear research and development effort, and we want to make sure we take the time during the review process to get the decision right," she wrote in an email.

That the grants haven't been given out during a taut campaign season, even as President Obama announces agency actions ranging from trade cases to creating new national monuments to make the case for his re-election, may be a sign that the reactors are ensnared in a broader feud over energy spending.

Grant recipients would develop reactor designs with an eye toward eventually turning those into pilot projects -- and the loan guarantees that these first-of-a-kind nuclear plants are using today to get financing would be blocked under the "No More Solyndras" bill that passed the House last week (Greenwire, Sept. 14).

#### Recipients haven’t even been announced

SLPD 11-2 – St. Louis Post-Dispatch, 11/2/12, “Ameren, Westinghouse still waiting for decision on nuclear grant,” http://www.stltoday.com/business/local/ameren-westinghouse-still-waiting-for-decision-on-nuclear-grant/article\_1b46d35b-eda4-5c15-9b08-b0ed80caf2bf.html

The whole plan hinged on getting at least a share of a $452 million federal grant to advance commercialization of next-generation nuclear technology.

Today, a month after the Department of Energy was supposed to announce who would share the federal money, Ameren and Westinghouse are still waiting. And with the presidential election just days away, heightened scrutiny of energy technology subsidies, a growing budget deficit and a potential change in administrations are looming.

An Energy Department spokeswoman said applications are still under review. She didn’t say when a decision would be made.

### r&d

#### Direct R&D spending costs political capital

**Shu, 09** – grad student at MIT (Gary, The Tech; SOURCE: Massachusetts Institute of Technology, University Wire, 3/6, lexis)

Like a duck being fattened for a fois gras slaughter, the recently-passed stimulus bill is about to shove funds down the throat of the Department of Energy - approximately $40 billion worth in a department that already handles $25 billion. The money is diffusing throughout all parts of the organization, from the widely vaunted energy efficiency and weatherization money ($14 billion) to renewable energy loan guarantees ($6 billion) to smart grid funding ($4.5 billion).¶ Of course money is also being dished out in such portions like $6.5 billion for two federal power grids to perform system maintenance and upgrades as well as $6 billion for euphemistic-sounding departments for radioactive waste cleanup (i.e. Office of Legacy Management and Environmental Management). Given that the Energy Department's Loan Guarantee Program has yet to deliver a single cent of its nearly $100 billion worth of loans and that Secretary Chu needs new laws passed to revamp the program, how "stimulating" do you think all this money will really be?¶ The budget proposed by the Obama administration last week already depends on $90 billion worth of revenue from a nationwide cap-and-trade program on carbon dioxide to pay for items like tax cuts and renewable energy research. How much does our nationwide cap-and-trade program currently deliver?¶ Oh wait, we don't even have one.¶ We do have the recently launched Regional Greenhouse Gas Initiative cap-and-trade system here in the Northeast though! So far, it's generously produced carbon permit revenues to the tune of $140 million.¶ I'm not reaching when I say there's a disconnect somewhere here. Political will, absent backbreaking compromises, is obligatory. Money is necessary, but spending it well is a requirement. To use a campaign turn-of-phrase - "hope" is not a strategy.¶ Much political capital and money will be spent on delivering energy research, development, and deployment (RD&D) but we cannot be but surprised when our lofty expectations are not met by the broken system we have so firmly institutionalized. How the aspects of RD&D end up being implemented will determine if a new energy paradigm is realized.¶ What does the current state of deploying energy innovation look like then?¶ Our transmission system is a jigsaw puzzle of authorities, regulations, models, governments, and utilities, all with their own agenda and gunning to keep their piece of the pie. The bulk of the work done at the Energy Department's National Labs has little to do with energy.

#### HOWEVER, tax credits are popular

**Roskam, 8** – US Representative (Peter, States News Service, “ROSKAM LEADS BIPARTISAN 84-MEMBER EFFORT TO EXTEND RANDD TAX CREDIT,” 4/16, lexis)

The following information was released by the office of Illinois Rep. Peter Roskam:

We are writing to urge you to continue your bipartisan approach to economic stimulus issues by promptly bringing up H.R. 2138, the Investment in America Act of 2007, in order to seamlessly extend and strengthen the research and development (RandD) tax credit that expired at the end of last year. This legislation has strong bipartisan support with 148 cosponsors, including 30 members of the Ways and Means Committee.¶ While troubles in specific sectors of the economy have so far claimed the most attention in Congress and the media, we remain concerned about the potential for broader weakness in our nation's economy.¶ Seamlessly extending and strengthening the RandD tax credit is exactly the kind of action we need to reinforce the stimulus measures that Congress overwhelmingly approved last month. U.S. economic growth is closely tied to the ability of our companies to make a sustained commitment to long-term, high-cost research. Since the RandD tax credit is available only for certain qualified research performed in the United States, it also can be viewed as a domestic job growth program Most of the benefits of the credit are attributable to salaries of workers performing U.S. based research.