# Northwestern Opensource

# Rd2 v Fullerton

### Off

#### The aff should advocate increasing energy production

#### The subject: central government- the USFG.

#### The verb: increase- to make greater. Or reduce to make smaller

#### The objects -Financial incentives means loans/grants

**UNCTAD, 4** - UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT (“INCENTIVES”

http://unctad.org/en/docs/iteiit20035\_en.pdf

There is no uniform definition of what constitutes an “investment incentive”. (Box I.1. contains a list of commonly used incentives.) The only major international instrument that contains a partial definition is the SCM Agreement (see below). Governments use three main categories of investment incentives to attract FDI and to benefit more from it:

· financial incentives, such as outright grants and loans at concessionary rates;

· fiscal incentives such as tax holidays and reduced tax rates;

· other incentives, including subsidized infrastructure or services, market preferences and regulatory concessions, including exemptions from labour or environmental standards.

#### Restrictions are prohibitions

Words & Phrases 2004 v37A p410

N.D.Okla. 1939. "Restriction," as used in the statutes concerning restriction on alienation of lands inherited from deceased Osage allottees, is synonymous with "prohibition." Act April J8, 1912. §§ 6, 7, 37 Stat. 87, 88.—U.S. v. Mullendore, 30 F.Supp. 13, appeal dismissed 111 F.2d 898.— Indians 15(1).

#### The direct object is energy production

Rombouts 2006 Is Cumulative Fossil Energy Demand a Useful Indicator for the Environmental Performance of Products? M A R K A . J ., \* HUIJBREGTS , † L I N D A J . A . R O M B O U T S , † S T E F A N I E H E L L W E G , ‡ R O L F F R I S C H K N E C H T , § A . J A N H E N D R I K S , † D I K V A N D E M E E N T , † , | A D M . J . R A G A S , † L U C A S R E I J N D E R S , ⊥ A N D J A A P S T R U I J S | Department of Environmental Science, Institute for Wetland and Water Research, Faculty of Science, Radboud University Nijmegen, P.O. Box 9010, NL-6500 GL Nijmegen, The Netherlands, Institute for Chemical- and Bioengineering, Swiss Federal Institute of Technology Zu¨rich, CH-8093 Zu¨rich, Switzerland, Ecoinvent Centre, Ueberlandstrasse 129, CH-8600 Duebendorf, Switzerland, Laboratory for Ecological Risk Assessment, National Institute of Public Health and the Environment, P.O. Box 1, NL-3720 BA, Bilthoven, The Netherlands, and Institute for Biodiversity and Ecosystem Dynamics, University of Amsterdam, Nieuwe Achtergracht 166, NL-1018 WV, Amsterdam, The Netherlands 2006 American Chemical Society VOL. 40, NO. 3, 2006 / ENVIRONMENTAL SCIENCE & TECHNOLOGY 9 641 http://pubs.acs.org/doi/pdf/10.1021/es051689g

The appropriateness of the fossil Cumulative Energy Demand (CED) as an indicator for the environmental performance of products and processes is explored with a regression analysis between the environmental life-cycle impacts and fossil CEDs of 1218 products, divided into the product categories “energy production”, “material production”, “transport”, and “waste treatment”. Our results show that, for all product groups but waste treatment, the fossil CED correlates well with most impact categories, such as global warming, resource depletion, acidification, eutrophication, tropospheric ozone formation, ozone depletion, and human toxicity (explained variance between 46% and 100%). We conclude that the use of fossil fuels is an important driver of several environmental impacts and thereby indicative for many environmental problems. It may therefore serve as a screening indicator for environmental performance. However, the usefulness of fossil CED as a stand-alone indicator for environmental impact is limited by the large uncertainty in the product-specific fossil CEDbased impact scores (larger than a factor of 10 for the majority of the impact categories; 95% confidence interval). A major reason for this high uncertainty is nonfossil energy related emissions and land use, such as landfill leachates, radionuclide emissions, and land use in agriculture and forestry.

#### Links

#### 1. The SUBJECT of the action is the AFF team, not the USFG.

#### 2. The OBJECT of the action is the judge, not energy.

#### 3. Their use of the double and/or makes the plan totally incoherent and proves it could mean any one of 12 things and negate any or all of the others.

#### Vote neg-

#### Infinite regression—disregarding resolutional syntax produces an endless regression to small, trivial plans. For example, an aff only about the subject opens the door to ANY philosophy that speaks to ‘being.’

#### The impact to that is decisionmaking—debate over a controversial point of action creates argumentative stasis—that’s key to avoid a devolution of debate into competing truth claims

Steinberg, lecturer of communication studies – University of Miami, and Freeley, Boston based attorney who focuses on criminal, personal injury and civil rights law, ‘8

(David L. and Austin J., Argumentation and Debate: Critical Thinking for Reasoned Decision Making p. 45)

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.

#### Decisionmaking is the most portable skill—key to all facets of life and advocacy

Steinberg, lecturer of communication studies – University of Miami, and Freeley, Boston based attorney who focuses on criminal, personal injury and civil rights law, ‘8

(David L. and Austin J., Argumentation and Debate: Critical Thinking for Reasoned Decision Making p. 9-10)

After several days of intense debate, first the United States House of Representatives and then the U.S. Senate voted to authorize President George W. Bush to attack Iraq if Saddam Hussein refused to give up weapons of mass destruction as required by United Nations's resolutions. Debate about a possible military\* action against Iraq continued in various governmental bodies and in the public for six months, until President Bush ordered an attack on Baghdad, beginning Operation Iraqi Freedom, the military campaign against the Iraqi regime of Saddam Hussein. He did so despite the unwillingness of the U.N. Security Council to support the military action, and in the face of significant international opposition.¶ Meanwhile, and perhaps equally difficult for the parties involved, a young couple deliberated over whether they should purchase a large home to accommodate their growing family or should sacrifice living space to reside in an area with better public schools; elsewhere a college sophomore reconsidered his major and a senior her choice of law school, graduate school, or a job. Each of these\* situations called for decisions to be made. Each decision maker worked hard to make well-reasoned decisions.¶ Decision making is a thoughtful process of choosing among a variety of options for acting or thinking. It requires that the decider make a choice. Life demands decision making. We make countless individual decisions every day. To make some of those decisions, we work hard to employ care and consideration; others seem to just happen. Couples, families, groups of friends, and coworkers come together to make choices, and decision-making homes from committees to juries to the U.S. Congress and the United Nations make decisions that impact us all. Every profession requires effective and ethical decision making, as do our school, community, and social organizations.¶ We all make many decisions even- day. To refinance or sell one's home, to buy a high-performance SUV or an economical hybrid car. what major to select, what to have for dinner, what candidate CO vote for. paper or plastic, all present lis with choices. Should the president deal with an international crisis through military invasion or diplomacy? How should the U.S. Congress act to address illegal immigration?¶ Is the defendant guilty as accused? Tlie Daily Show or the ball game? And upon what information should I rely to make my decision? Certainly some of these decisions are more consequential than others. Which amendment to vote for, what television program to watch, what course to take, which phone plan to purchase, and which diet to pursue all present unique challenges. At our best, we seek out research and data to inform our decisions. Yet even the choice of which information to attend to requires decision making. In 2006, TIMI: magazine named YOU its "Person of the Year." Congratulations! Its selection was based on the participation not of ''great men" in the creation of history, but rather on the contributions of a community of anonymous participants in the evolution of information. Through blogs. online networking. You Tube. Facebook, MySpace, Wikipedia, and many other "wikis," knowledge and "truth" are created from the bottom up, bypassing the authoritarian control of newspeople. academics, and publishers. We have access to infinite quantities of information, but how do we sort through it and select the best information for our needs?¶ The ability of every decision maker to make good, reasoned, and ethical decisions relies heavily upon their ability to think critically. Critical thinking enables one to break argumentation down to its component parts in order to evaluate its relative validity and strength. Critical thinkers are better users of information, as well as better advocates.¶ Colleges and universities expect their students to develop their critical thinking skills and may require students to take designated courses to that end. The importance and value of such study is widely recognized.¶ Much of the most significant communication of our lives is conducted in the form of debates. These may take place in intrapersonal communications, in which we weigh the pros and cons of an important decision in our own minds, or they may take place in interpersonal communications, in which we listen to arguments intended to influence our decision or participate in exchanges to influence the decisions of others.¶ Our success or failure in life is largely determined by our ability to make wise decisions for ourselves and to influence the decisions of others in ways that are beneficial to us. Much of our significant, purposeful activity is concerned with making decisions. Whether to join a campus organization, go to graduate school, accept a job oiler, buy a car or house, move to another city, invest in a certain stock, or vote for Garcia—these are just a few of the thousands of decisions we may have to make. Often, intelligent self-interest or a sense of responsibility will require us to win the support of others. We may want a scholarship or a particular job for ourselves, a customer for out product, or a vote for our favored political candidate.

#### Limits—resolutional limits encourage AFF innovation, predictive research on a designated topic, and clash—a precursor to productive education. Must define all words- key to meaning and negative prep. Also, the inherent value of arguments within limits is greater, which link turns education arguments.

#### Unbridled affirmation makes research impossible and destroys dialogue in debate

Hanghoj 8

http://static.sdu.dk/mediafiles/Files/Information\_til/Studerende\_ved\_SDU/Din\_uddannelse/phd\_hum/afhandlinger/2009/ThorkilHanghoej.pdf¶ Thorkild Hanghøj, Copenhagen, 2008 ¶ Since this PhD project began in 2004, the present author has been affiliated with DREAM (Danish¶ Research Centre on Education and Advanced Media Materials), which is located at the Institute of¶ Literature, Media and Cultural Studies at the University of Southern Denmark. Research visits have¶ taken place at the Centre for Learning, Knowledge, and Interactive Technologies (L-KIT), the¶ Institute of Education at the University of Bristol and the institute formerly known as Learning Lab¶ Denmark at the School of Education, University of Aarhus, where I currently work as an assistant¶ professor.

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).

#### Dialogue is critical to affirming any value—shutting down deliberation devolves into totalitarianism and reinscribes oppression

Morson 4

http://www.flt.uae.ac.ma/elhirech/baktine/0521831059.pdf#page=331

Northwestern Professor, Prof. Morson's work ranges over a variety of areas: literary theory (especially narrative); the history of ideas, both Russian and European; a variety of literary genres (especially satire, utopia, and the novel); and his favorite writers -- Chekhov, Gogol, and, above all, Dostoevsky and Tolstoy. He is especially interested in the relation of literature to philosophy.

Bakhtin viewed the whole process of “ideological” (in the sense of ideas and values, however unsystematic) development as an endless dialogue. As teachers, we find it difficult to avoid a voice of authority, however much we may think of ours as the rebel’s voice, because our rebelliousness against society at large speaks in the authoritative voice of our subculture.We speak the language and thoughts of academic educators, even when we imagine we are speaking in no jargon at all, and that jargon, inaudible to us, sounds with all the overtones of authority to our students. We are so prone to think of ourselves as fighting oppression that it takes some work to realize that we ourselves may be felt as oppressive and overbearing, and that our own voice may provoke the same reactions that we feel when we hear an authoritative voice with which we disagree. So it is often helpful to think back on the great authoritative oppressors and reconstruct their self-image: helpful, but often painful. I remember, many years ago, when, as a recent student rebel and activist, I taught a course on “The Theme of the Rebel” and discovered, to my considerable chagrin, that many of the great rebels of history were the very same people as the great oppressors. There is a famous exchange between Erasmus and Luther, who hoped to bring the great Dutch humanist over to the Reformation, but Erasmus kept asking Luther how he could be so certain of so many doctrinal points. We must accept a few things to be Christians at all, Erasmus wrote, but surely beyond that there must be room for us highly fallible beings to disagree. Luther would have none of such tentativeness. He knew, he was sure. The Protestant rebels were, for a while, far more intolerant than their orthodox opponents. Often enough, the oppressors are the ones who present themselves and really think of themselves as liberators. Certainty that one knows the root cause of evil: isn’t that itself often the root cause? We know from Tsar Ivan the Terrible’s letters denouncing Prince Kurbsky, a general who escaped to Poland, that Ivan saw himself as someone who had been oppressed by noblemen as a child and pictured himself as the great rebel against traditional authority when he killed masses of people or destroyed whole towns. There is something in the nature of maximal rebellion against authority that produces ever greater intolerance, unless one is very careful. For the skills of fighting or refuting an oppressive power are not those of openness, self-skepticism, or real dialogue. In preparing for my course, I remember my dismay at reading Hitler’s Mein Kampf and discovering that his self-consciousness was precisely that of the rebel speaking in the name of oppressed Germans, and that much of his amazing appeal – otherwise so inexplicable – was to the German sense that they were rebelling victims. In our time, the Serbian Communist and nationalist leader Slobodan Milosevic exploited much the same appeal. Bakhtin surely knew that Communist totalitarianism, the Gulag, and the unprecedented censorship were constructed by rebels who had come to power. His favorite writer, Dostoevsky, used to emphasize that the worst oppression comes from those who, with the rebellious psychology of “the insulted and humiliated,” have seized power – unless they have somehow cultivated the value of dialogue, as Lenin surely had not, but which Eva, in the essay by Knoeller about teaching The Autobiography of Malcolm X, surely had. Rebels often make the worst tyrants because their word, the voice they hear in their consciousness, has borrowed something crucial from the authoritative word it opposed, and perhaps exaggerated it: the aura of righteous authority. If one’s ideological becoming is understood as a struggle in which one has at last achieved the truth, one is likely to want to impose that truth with maximal authority; and rebels of the next generation may proceed in much the same way, in an ongoing spiral of intolerance.

#### If our interpretation is net-beneficial it means there’s no reason to vote affirmative. If the case is true then it de-justifies the resolution. Teams are still signified by ‘AFF’ and ‘NEG’, so the resolution is a required measurement for ‘affirmation.’ It’s also outside your jurisdiction to vote for anything other than yes/no on the rez.

### Off

#### The aff’s focus on ontological structures mystifies the material roots of profit in the exploitation of labor rather than nature

DeFazio 12 (Kimberly, English Professor at University of Wisconsin Lacrosse, Winter/Spring 12, Machine-Thinking and the Romance of Posthumanism, http://redcritique.org/WinterSpring2012/machinethinkingandtheromanceofposthumanism.htm)

In the 21st century, global capitalism's commodification of all aspects of life has reached new heights, requiring new modes of explaining away the material roots. From cloning and bioengineered food, to ever-newer forms of human-technological hybrids, to overfishing and industrialization of slaughterhouses, to the privatization of public sources of water and the selling of "hot air" (which makes it possible for rich nations to avoid lowering emissions), to the "synthetic biology" by which biocapitalists like J. Craig Venter hope new living creatures will be produced to substitute fossil fuels—there is no aspect of social or natural life that is immune from the market. Capital's endless and inherently crisis-ridden drive to accumulate profit has, on the one hand, led to a new scramble among nations of the global North to privatize the world's dwindling natural resources regardless of the human and ecological consequences. What this competitive drive has lead to, among other things, is the scientific explorations of new bio-horizons: what Venter calls a "new industrial revolution" (Pollack). On the other hand, the most recent effects of capitalist crisis—beginning with the 2007 housing market crash—have been used to justify further privatization of social resources, leading to historically unprecedented cuts in wages, employment and social programs throughout the global North.¶ It is not surprising, then, that cultural theory has become more and more concerned with the relation between human and non-human life and with the instrumentalities used by the former to control the latter. Broadly characterized by a "posthuman" displacement of humanist priorities of reason, rationality and Cartesian dualism, at the center of which is a human subject constructed as fundamentally different from and superior to non-human animals and life and capable of developing reliable knowledge of and control over the objective world—a wide range of cultural writing today has become concerned with the increasing subjugation of nature to human calculation and control, and call for a new inquiry into the relation of the human and its other. Some, like Giorgio Agamben, address the increasing efforts of the state to control and manage all aspects of human and non-human life (Homo Sacer; The Open). Others, like Antonio Negri and Michael Hardt, focus on the efforts by corporations to privatize the knowledges, affects and technologies that have been developed through the collective energies of what they call the multitude: the efforts to enclose the digital commons in the interests of a powerful few (Commonwealth). Graham Harman goes so far as to suggest that the "being" of tools is constitutive of all being in the contemporary moment (Tool-Being), while Peter Menzel and Faith D'Alusio celebrate the displacement of homo sapiens by the notion of robo sapiens (Robo Sapiens). Among one of the most popular developments in contemporary posthumanist theory, animal studies, writers like Cary Wolfe, Donna Haraway, Kelly Oliver, and Matthew Calarco, taking their cue from Derrida's later writings (i.e., The Animal That Therefore I Am), address what is for them the instrumentalizing and unethical discourses of humanism, which justifies its violence toward non-human species by its epistemological centering of the human: the "anthropological machine" (Agamben, The Open).¶ But what drives the "new industrial revolution" (Venter) is what drove the "old" one: the use of technology to appropriate surplus labor (the source of profit) at the point of production. Profit is not derived from "nature" but labor: in order for nature to become a commodifiable resource, it must become transformed by human labor, which is itself a dialectical outcome of nature. This is another way of saying that the commodification of life on such a planetary scale today is only possible on the basis of the commodification of human labor power. Biocapitalism is first and foremost a regime of wage labor.¶ Contemporary cultural theory's concern with the effects of capitalism on non-human life, however, has mystified capital's material roots, and one of the central means by which this has been accomplished is what I call machine-thinking.

#### Class must be considered the foundational structure- focusing on exclusions of trash ensure that capitalism becomes sanitized and that trash becomes commodified

gimenez 2001

[Martha, Prof. Of Sociology at CU Boulder, “Marxism and Class, Gender and Race”, Race Gender and Class, Vol. 8, p. online]

There are many competing theories of race, gender, class, American society, political economy, power, etc. but no specific theory is invoked to define how the terms race, gender and class are used, or to identify how they are related to the rest of the social system. To some extent, race, gender and class and their intersections and interlockings have become a mantra to be invoked in any and all theoretical contexts, for a tacit agreement about their ubiquitousness and meaning seems to have developed among RGC studies advocates, so that all that remains to be dome is empirically to document their intersections everywhere, for everything that happens is, by definition, raced, classed, and gendered. This pragmatic acceptance of race, gender and class, as givens, results in the downplaying of theory, and the resort to experience as the source of knowledge. The emphasis on experience in the construction of knowledge is intended as a corrective to theories that, presumably, reflect only the experience of the powerful. RGC seems to offer a subjectivist understanding of theory as simply a reflection of the experience and consciousness of the individual theorist, rather than as a body of propositions which is collectively and systematically produced under historically specific conditions of possibility which grant them historical validity for as long as those conditions prevail. Instead, knowledge and theory are pragmatically conceived as the products or reflection of experience and, as such, unavoidably partial, so that greater accuracy and relative completeness can be approximated only through gathering the experiential accounts of all groups. Such is the importance given to the role of experience in the production of knowledge that in the eight page introduction to the first section of an RGC anthology, the word experience is repeated thirty six times (Andersen and Collins, 1995: 1-9). I agree with the importance of learning from the experience of all groups, especially those who have been silenced by oppression and exclusion and by the effects of ideologies that mystify their actual conditions of existence. To learn how people describe their understanding of their lives is very illuminating, for "ideas are the conscious expression -- real or illusory -- of (our) actual relations and activities" (Marx, 1994: 111), because "social existence determines consciousness" (Marx, 1994: 211). Given that our existence is shaped by the capitalist mode of production, experience, to be fully understood in its broader social and political implications, has to be situated in the context of the capitalist forces and relations that produce it. Experience in itself, however, is suspect because, dialectically, it is a unity of opposites; it is, at the same time, unique, personal, insightful and revealing and, at the same time, thoroughly social, partial, mystifying, itself the product of historical forces about which individuals may know little or nothing about (for a critical assessment of experience as a source of knowledge see Sherry Gorelick, "Contradictions of feminist methodology," in Chow, Wilkinson, and Baca Zinn, 1996; applicable to the role of experience in contemporary RGC and feminist research is Jacoby's critique of the 1960s politics of subjectivity: Jacoby, 1973: 37- 49). Given the emancipatory goals of the RGC perspective, it is through the analytical tools of Marxist theory that it can move forward, beyond the impasse revealed by the constant reiteration of variations on the "interlocking" metaphor. This would require, however, a) a rethinking and modification of the postulated relationships between race, class and gender, and b) a reconsideration of the notion that, because everyone is located at the intersection of these structures, all social relations and interactions are "raced," "classed," and "gendered." In the RGC perspective, race, gender and class are presented as equivalent systems of oppression with extremely negative consequences for the oppressed. It is also asserted that the theorization of the connections between these systems require "a working hypothesis of equivalency" (Collins, 1997:74). Whether or not it is possible to view class as just another system of oppression depends on the theoretical framework within class is defined. If defined within the traditional sociology of stratification perspective, in terms of a gradation perspective, class refers simply to strata or population aggregates ranked on the basis of standard SES indicators (income, occupation, and education) (for an excellent discussion of the difference between gradational and relational concepts of class, see Ossowski, 1963). Class in this non-relational, descriptive sense has no claims to being more fundamental than gender or racial oppression; it simply refers to the set of individual attributes that place individuals within an aggregate or strata arbitrarily defined by the researcher (i.e., depending on their data and research purposes, anywhere from three or four to twelve "classes" can be identified). From the standpoint of Marxist theory, however, class is qualitatively different from gender and race and cannot be considered just another system of oppression. As Eagleton points out, whereas racism and sexism are unremittingly bad, class is not entirely a "bad thing" even though socialists would like to abolish it. The bourgeoisie in its revolutionary stage was instrumental in ushering a new era in historical development, one which liberated the average person from the oppressions of feudalism and put forth the ideals of liberty, equality and fraternity. Today, however, it has an unquestionably negative role to play as it expands and deepens the rule of capital over the entire globe. The working class, on the other hand, is pivotally located to wage the final struggle against capital and, consequently, it is "an excellent thing" (Eagleton, 1996: 57). While racism and sexism have no redeeming feature, class relations are, dialectically, a unity of opposites; both a site of exploitation and, objectively, a site where the potential agents of social change are forged. To argue that the working class is the fundamental agent of change does not entail the notion that it is the only agent of change. The working class is of course composed of women and men who belong to different races, ethnicities, national origins, cultures, and so forth, so that gender and racial/ethnic struggles have the potential of fueling class struggles because, given the patterns of wealth ownership and income distribution in this and all capitalist countries, those who raise the banners of gender and racial struggles are overwhelmingly propertyless workers, technically members of the working class, people who need to work for economic survival whether it is for a wage or a salary, for whom racism, sexism and class exploitation matter. But this vision of a mobilized working class where gender and racial struggles are not subsumed but are nevertheless related requires a class conscious effort to link RGC studies to the Marxist analysis of historical change. In so far as the "class" in RGC remains a neutral concept, open to any and all theoretical meanings, just one oppression among others, intersectionality will not realize its revolutionary potential. Nevertheless, I want to argue against the notion that class should be considered equivalent to gender and race. I find the grounds for my argument not only on the crucial role class struggles play in processes of epochal change but also in the very assumptions of RGC studies and the ethnomethodological insights put forth by West and Fenstermaker (1994). The assumption of the simultaneity of experience (i.e., all interactions are raced, classed, gendered) together with the ambiguity inherent in the interactions themselves, so that while one person might think he or she is "doing gender," another might interpret those "doings" in terms of "doing class," highlight the basic issue that Collins accurately identifies when she argues that ethnomethodology ignores power relations. Power relations underlie all processes of social interaction and this is why social facts are constraining upon people. But the pervasiveness of power ought not to obfuscate the fact that some power relations are more important and consequential than others. For example, the power that physical attractiveness might confer a woman in her interactions with her less attractive female supervisor or employer does not match the economic power of the latter over the former. In my view, the flattening or erasure of the qualitative difference between class, race and gender in the RGC perspective is the foundation for the recognition that it is important to deal with "basic relations of domination and subordination" which now appear disembodied, outside class relations. In the effort to reject "class reductionism," by postulating the equivalence between class and other forms of oppression, the RGC perspective both negates the fundamental importance of class but it is forced to acknowledge its importance by postulating some other "basic" structures of domination. Class relations -- whether we are referring to the relations between capitalist and wage workers, or to the relations between workers (salaried and waged) and their managers and supervisors, those who are placed in "contradictory class locations," (Wright, 1978) -- are of paramount importance, for most people's economic survival is determined by them. Those in dominant class positions do exert power over their employees and subordinates and a crucial way in which that power is used is through their choosing the identity they impute their workers. Whatever identity workers might claim or "do," employers can, in turn, disregard their claims and "read" their "doings" differently as "raced" or "gendered" or both, rather than as "classed," thus downplaying their class location and the class nature of their grievances. To argue, then, that class is fundamental is not to "reduce" gender or racial oppression to class, but to acknowledge that the underlying basic and "nameless" power at the root of what happens in social interactions grounded in "intersectionality" is class power.

#### Capitalism’s preoccupation with endless accumulation will result in total ecological destruction and extinction

Foster 11,[John Bellamy ] Dec. 2011, Capitalism and the Accumulation of Catastrophe, Monthly Review, Vol. 63 Issue 07, <http://monthlyreview.org/2011/12/01/capitalism-and-the-accumulation-of-catastrophe> (Aug 2012)

Yet, the continued pursuit of Keynes’s convenient lie over the last eight decades has led to a world far more polarized and beset with contradictions than he could have foreseen. It is a world prey to the enormous unintended consequences of accumulation without limits: namely, global economic stagnation, financial crisis, and planetary ecological destruction. Keynes, though aware of some of the negative economic aspects of capitalist production, had no real understanding of the ecological perils—of which scientists had already long been warning. Today these perils are impossible to overlook. Faced with impending ecological catastrophe, it is more necessary than ever to abandon Keynes’s convenient lie and espouse the truth: that foul is foul and fair is fair. Capitalism, the society of “après moi le déluge!” is a system that fouls its own nest—both the human-social conditions and the wider natural environment on which it depends. The accumulation of capital is at the same time accumulation of catastrophe, not only for a majority of the world’s people, but living species generally. Hence, nothing is *fairer*—more just, more beautiful, and more necessary—today than the struggle to overthrow the regime of capital and to create a system of substantive equality and sustainable human development; a socialism for the twenty-first century.

#### The alternative is to reject capitalism through revolutionary action

Herod ‘4 James Herod author of several books on capitalism and social activist since 1968 Getting Free 2004 <http://site.www.umb.edu/faculty/salzman_g/Strate/GetFre/06.htm>

It is time to try to describe, at first abstractly and later concretely, a strategy for destroying capitalism. This strategy, at its most basic, calls for pulling time, energy, and resources out of capitalist civilization and putting them into building a new civilization. The image then is one of emptying out capitalist structures, hollowing them out, by draining wealth, power, and meaning out of them until there is nothing left but shells. This is definitely an aggressive strategy. It requires great militancy, and constitutes an attack on the existing order. The strategy clearly recognizes that capitalism is the enemy and must be destroyed, but it is not a frontal attack aimed at overthrowing the system, but an inside attack aimed at gutting it, while simultaneously replacing it with something better, something we want. Thus capitalist structures (corporations, governments, banks, schools, etc.) are not seized so much as simply abandoned. Capitalist relations are not fought so much as they are simply rejected. We stop participating in activities that support (finance, condone) the capitalist world and start participating in activities that build a new world while simultaneously undermining the old. We create a new pattern of social relations alongside capitalist relations and then we continually build and strengthen our new pattern while doing every thing we can to weaken capitalist relations. In this way our new democratic, non-hierarchical, non-commodified relations can eventually overwhelm the capitalist relations and force them out of existence. This is how it has to be done. This is a plausible, realistic strategy. To think that we could create a whole new world of decent social arrangements overnight, in the midst of a crisis, during a so-called revolution, or during the collapse of capitalism, is foolhardy. Our new social world must grow within the old, and in opposition to it, until it is strong enough to dismantle and abolish capitalist relations. Such a revolution will never happen automatically, blindly, determinably, because of the inexorable, materialist laws of history. It will happen, and only happen, because we want it to, and because we know what we�re doing and know how we want to live, and know what obstacles have to be overcome before we can live that way, and know how to distinguish between our social patterns and theirs. But we must not think that the capitalist world can simply be ignored, in a live and let live attitude, while we try to build new lives elsewhere. (There is no elsewhere.) There is at least one thing, wage-slavery, that we can�t simply stop participating in (but even here there are ways we can chip away at it). Capitalism must be explicitly refused and replaced by something else. This constitutes War, but it is not a war in the traditional sense of armies and tanks, but a war fought on a daily basis, on the level of everyday life, by millions of people. It is a war nevertheless because the accumulators of capital will use coercion, brutality, and murder, as they have always done in the past, to try to block any rejection of the system. They have always had to force compliance; they will not hesitate to continue doing so. Nevertheless, there are many concrete ways that individuals, groups, and neighborhoods can gut capitalism, which I will enumerate shortly. We must always keep in mind how we became slaves; then we can see more clearly how we can cease being slaves. We were forced into wage-slavery because the ruling class slowly, systematically, and brutally destroyed our ability to live autonomously. By driving us off the land, changing the property laws, destroying community rights, destroying our tools, imposing taxes, destroying our local markets, and so forth, we were forced onto the labor market in order to survive, our only remaining option being to sell, for a wage, our ability to work. It�s quite clear then how we can overthrow slavery. We must reverse this process. We must begin to reacquire the ability to live without working for a wage or buying the products made by wage-slaves (that is, we must get free from the labor market and the way of living based on it), and embed ourselves instead in cooperative labor and cooperatively produced goods. Another clarification is needed. This strategy does not call for reforming capitalism, for changing capitalism into something else. It calls for replacing capitalism, totally, with a new civilization. This is an important distinction, because capitalism has proved impervious to reforms, as a system. We can sometimes in some places win certain concessions from it (usually only temporary ones) and win some (usually short-lived) improvements in our lives as its victims, but we cannot reform it piecemeal, as a system. Thus our strategy of gutting and eventually destroying capitalism requires at a minimum a totalizing image, an awareness that we are attacking an entire way of life and replacing it with another, and not merely reforming one way of life into something else. Many people may not be accustomed to thinking about entire systems and social orders, but everyone knows what a lifestyle is, or a way of life, and that is the way we should approach it. The thing is this: in order for capitalism to be destroyed millions and millions of people must be dissatisfied with their way of life. They must want something else and see certain existing things as obstacles to getting what they want. It is not useful to think of this as a new ideology. It is not merely a belief-system that is needed, like a religion, or like Marxism, or Anarchism. Rather it is a new prevailing vision, a dominant desire, an overriding need. What must exist is a pressing desire to live a certain way, and not to live another way. If this pressing desire were a desire to live free, to be autonomous, to live in democratically controlled communities, to participate in the self-regulating activities of a mature people, then capitalism could be destroyed. Otherwise we are doomed to perpetual slavery and possibly even to extinction. The content of this vision is actually not new at all, but quite old. The long term goal of communists, anarchists, and socialists has always been to restore community. Even the great peasant revolts of early capitalism sought to get free from external authorities and restore autonomy to villages. Marx defined communism once as a free association of producers, and at another time as a situation in which the free development of each is a condition for the free development of all. Anarchists have always called for worker and peasant self-managed cooperatives. The long term goals have always been clear: to abolish wage-slavery, to eradicate a social order organized solely around the accumulation of capital for its own sake, and to establish in its place a society of free people who democratically and cooperatively self-determine the shape of their social world.

### Case

#### Existence is a prerequisite to ontological questioning

Wapner 2003 Paul Wapner (associate professor and director of the Global Environmental Policy Program at American University) Winter 2003 “Leftist criticism of” http://www.dissentmagazine.org/article/?article=539

THE THIRD response to eco-criticism would require critics to acknowledge the ways in which they themselves silence nature and then to respect the sheer otherness of the nonhuman world. Postmodernism prides itself on criticizing the urge toward mastery that characterizes modernity. But isn't mastery exactly what postmodernism is exerting as it captures the nonhuman world within its own conceptual domain? Doesn't postmodern cultural criticism deepen the modernist urge toward mastery by eliminating the ontological weight of the nonhuman world? What else could it mean to assert that there is no such thing as nature? I have already suggested the postmodernist response: yes, recognizing the social construction of "nature" does deny the self-expression of the nonhuman world, but how would we know what such self-expression means? Indeed, nature doesn't speak; rather, some person always speaks on nature's behalf, and whatever that person says is, as we all know, a social construction. All attempts to listen to nature are social constructions-except one. Even the most radical postmodernist must acknowledge the distinction between physical existence and non-existence. As I have said, postmodernists accept that there is a physical substratum to the phenomenal world even if they argue about the different meanings we ascribe to it. This acknowledgment of physical existence is crucial. We can't ascribe meaning to that which doesn't appear. What doesn't exist can manifest no character. Put differently, yes, the postmodernist should rightly worry about interpreting nature's expressions. And all of us should be wary of those who claim to speak on nature's behalf (including environmentalists who do that). But we need not doubt the simple idea that a prerequisite of expression is existence. This in turn suggests that preserving the nonhuman world-in all its diverse embodiments-must be seen by eco-critics as a fundamental good. Eco-critics must be supporters, in some fashion, of environmental preservation.

#### Ontology first is logically bankrupt

Jackson 2010 (Patrick Thaddeus Jackson, Associate Professor of International Relations in the School of International Service at the American University in Washington, DC, 2010, “The Conduct of Inquiry in International Relations: Philosophy of Science and its Implications for the Study of World Politics,” ebook)

However, I do not think that putting ontology first is the panacea that many seem to think it is. For one thing, if one puts ontology first then one is, at least provisionally, committed to a particular (if revisable) account of what the world is made up of: co-constituted agents and structures, states interacting under conditions of anarchy, global class relations, or what have you. This is a rather large leap to make on anyone’s authority, let alone that of a philosopher of science. Along these lines, it is unclear what if any warrant we could provide for most ontological claims if ontology in this sense were to always “come first.” If someone makes an ontological claim about something existing in the world, then we are faced with an intriguing epistemological problem of how possibly to know whether that claim is true, and the equally intriguing problem of selecting the proper methods to use in evaluating the claim (Chernoff 2009b, 391). But if epistemology and method are supposed to be fitted to ontology, then we are stuck with techniques and standards designed to respond to the specificity of the object under investigation. This problem is roughly akin to using state-centric measurements of cross-border transactions to determine whether globalization is eroding state borders, because the very object under investigation—“state borders”—is presupposed by the procedures of data-collection, meaning that the answer will always, and necessarily, assert the persistence of the state.

#### Ontology focus prevents action

McClean 2001 David McClean (philosopher, writer and business consultant, conducted graduate work in philosophy at NYU) 2001 “The cultural left and the limits of social hope” http://www.american-philosophy.org/archives/past\_conference\_programs/pc2001/Discussion%20papers/david\_mcclean.htm

There is a lot of philosophical prose on the general subject of social justice. Some of this is quite good, and some of it is quite bad. What distinguishes the good from the bad is not merely the level of erudition. Displays of high erudition are gratuitously reflected in much of the writing by those, for example, still clinging to Marxian ontology and is often just a useful smokescreen which shrouds a near total disconnect from empirical reality. This kind of political writing likes to make a lot of references to other obscure, jargon-laden essays and tedious books written by other true believers - the crowd that takes the fusion of Marxian and Freudian private fantasies seriously. Nor is it the lack of scholarship that makes this prose bad. Much of it is well "supported" by footnotes referencing a lode of other works, some of which are actually quite good. Rather, what makes this prose bad is its utter lack of relevance to extant and critical policy debates, the passage of actual laws, and the amendment of existing regulations that might actually do some good for someone else. The writers of this bad prose are too interested in our arrival at some social place wherein we will finally emerge from our "inauthentic" state into something called "reality." Most of this stuff, of course, comes from those steeped in the Continental tradition (particularly post-Kant). While that tradition has much to offer and has helped shape my own philosophical sensibilities, it is anything but useful when it comes to truly relevant philosophical analysis, and no self-respecting Pragmatist can really take seriously the strong poetry of formations like "authenticity looming on the ever remote horizons of fetishization." What Pragmatists see instead is the hope that we can fix some of the social ills that face us if we treat policy and reform as more important than Spirit and Utopia.

#### Ontology doesn’t come first or indict our scholarship

Owen 2002 (David Owen, reader of political theory at the University of Southampton, Millennium, Volume 31, Number 3, pg. 655-657)

Commenting on the ‘philosophical turn’ in IR, Wæver remarks that ‘[a] frenzy for words like “epistemology” and “ontology” often signals this philosophical turn’, although he goes on to comment that these terms are often used loosely.4 However, loosely deployed or not, it is clear that debates concerning ontology and epistemology play a central role in the contemporary IR theory wars. In one respect, this is unsurprising since it is a characteristic feature of the social sciences that periods of disciplinary disorientation involve recourse to reflection on the philosophical commitments of different theoretical approaches, and there is no doubt that such reflection can play a valuable role in making explicit the commitments that characterise (and help individuate) diverse theoretical positions. Yet, such a philosophical turn is not without its dangers and I will briefly mention three before turning to consider a confusion that has, I will suggest, helped to promote the IR theory wars by motivating this philosophical turn. The first danger with the philosophical turn is that it has an inbuilt tendency to prioritise issues of ontology and epistemology over explanatory and/or interpretive power as if the latter two were merely a simple function of the former. But while the explanatory and/or interpretive power of a theoretical account is not wholly independent of its ontological and/or epistemological commitments (otherwise criticism of these features would not be a criticism that had any value), it is by no means clear that it is, in contrast, wholly dependent on these philosophical commitments. Thus, for example, one need not be sympathetic to rational choice theory to recognise that it can provide powerful accounts of certain kinds of problems, such as the tragedy of the commons in which dilemmas of collective action are foregrounded. It may, of course, be the case that the advocates of rational choice theory cannot give a good account of why this type of theory is powerful in accounting for this class of problems (i.e., how it is that the relevant actors come to exhibit features in these circumstances that approximate the assumptions of rational choice theory) and, if this is the case, it is a philosophical weakness—but this does not undermine the point that, for a certain class of problems, rational choice theory may provide the best account available to us. In other words, while the critical judgement of theoretical accounts in terms of their ontological and/or epistemological sophistication is one kind of critical judgement, it is not the only or even necessarily the most important kind. The second danger run by the philosophical turn is that because prioritisation of ontology and epistemology promotes theory-construction from philosophical first principles, it cultivates a theory-driven rather than problem-driven approach to IR. Paraphrasing Ian Shapiro, the point can be put like this: since it is the case that there is always a plurality of possible true descriptions of a given action, event or phenomenon, the challenge is to decide which is the most apt in terms of getting a perspicuous grip on the action, event or phenomenon in question given the purposes of the inquiry; yet, from this standpoint, ‘theory-driven work is part of a reductionist program’ in that it ‘dictates always opting for the description that calls for the explanation that flows from the preferred model or theory’.5 The justification offered for this strategy rests on the mistaken belief that it is necessary for social science because general explanations are required to characterise the classes of phenomena studied in similar terms. However, as Shapiro points out, this is to misunderstand the enterprise of science since ‘whether there are general explanations for classes of phenomena is a question for social-scientific inquiry, not to be prejudged before conducting that inquiry’.6 Moreover, this strategy easily slips into the promotion of the pursuit of generality over that of empirical validity. The third danger is that the preceding two combine to encourage the formation of a particular image of disciplinary debate in IR—what might be called (only slightly tongue in cheek) ‘the Highlander view’—namely, an image of warring theoretical approaches with each, despite occasional temporary tactical alliances, dedicated to the strategic achievement of sovereignty over the disciplinary field. It encourages this view because the turn to, and prioritisation of, ontology and epistemology stimulates the idea that there can only be one theoretical approach which gets things right, namely, the theoretical approach that gets its ontology and epistemology right. This image feeds back into IR exacerbating the first and second dangers, and so a potentially vicious circle arises.

#### Calculation is good and doesn’t devalue life

Revesz 2008 Richard L. Revesz (Dean and Lawrence King Professor of Law at New York University School of Law, JD Yale Law School) and Michael A Livermore. (JD NYU School of Law, Executive Director of the Institute for Policy Integrity, and Managing director of the NYU Law Review). Retaking Rationality How Cots-Benefit Analysis Can Better protect the Environment and Our Health. 2008. P. 1-4.

Governmental decisions are also fundamentally different from personal decisions in that they often affect people in the aggregate. In our individual lives, we come into contact with at least some of the consequences of our decisions. If we fail to consult a map, we pay the price: losing valuable time driving around in circles and listening to the complaints of our passengers. We are constantly confronted with the consequences of the choices that we have made. Not so for governments, however, which exercise authority by making decisions at a distance. Perhaps one of the most challenging aspects of governmental decisions is that they require a special kind of compassion—one that can seem, at first glance, cold and calculating, the antithesis of empathy. The aggregate and complex nature of governmental decisions does not address people as human beings, with concerns and interests, families and emotional relationships, secrets and sorrows. Rather, people are numbers stacked in a column or points on a graph, described not through their individual stories of triumph and despair, but by equations, functions, and dose-response curves. The language of governmental decisionmaking can seem to—and to a certain extent does—ignore what makes individuals unique and morally important. But, although the language of bureaucratic decisionmaking can be dehumanizing, it is also a prerequisite for the kind of compassion that is needed in contemporary society. Elaine Scarry has developed a comparison between individual compassion and statistical compassion.' Individual compassion is familiar—when we see a person suffering, or hear the story of some terrible tragedy, we are moved to take action. Statistical compassion seems foreign—we hear only a string of numbers but must comprehend "the concrete realities embedded there."' Individual compassion derives from our social nature, and may be hardwired directly into the human brain.' Statistical compassion calls on us to use our higher reasoning power to extend our natural compassion to the task of solving more abstract—but no less real—problems. Because compassion is not just about making us feel better—which we could do as easily by forgetting about a problem as by addressing it—we have a responsibility to make the best decisions that we can. This book argues that cost-benefit analysis, properly conducted, can improve environmental and public health policy. Cost-benefit analysis—the translation of human lives and acres of forest into the language of dollars and cents—can seem harsh and impersonal. But such an approach is also necessary to improve the quality of decisions that regulators make. Saving the most lives, and best protecting the quality of our environment and our health—in short, exercising our compassion most effectively—requires us to step back and use our best analytic tools. Sometimes, in order to save a life, we need to treat a person like a number. This is the challenge of statistical compassion. This book is about making good decisions. It focuses on the area of environmental, health and safety regulation. These regulations have been the source of numerous and hard-fought controversies over the past several decades, particularly at the federal level. Reaching the right decisions in the areas of environmental protection, increasing safety, and improving public health is clearly of high importance. Although it is admirable (and fashionable) for people to buy green or avoid products made in sweatshops, efforts taken at the individual level are not enough to address the pressing problems we face—there is a vital role for government in tackling these issues, and sound collective decisions concerning regulation are needed. There is a temptation to rely on gut-level decisionmaking in order to avoid economic analysis, which, to many, is a foreign language on top of seeming cold and unsympathetic. For government to make good decisions, however, it cannot abandon reasoned analysis. Because of the complex nature of governmental decisions, we have no choice but to deploy complex analytic tools in order to make the best choices possible. Failing to use these tools, which amounts to abandoning our duties to one another, is not a legitimate response. Rather, we must exercise statistical compassion by recognizing what numbers of lives saved represent: living and breathing human beings, unique, with rich inner lives and an interlocking web of emotional relationships. The acres of a forest can be tallied up in a chart, but that should not blind us to the beauty of a single stand of trees. We need to use complex tools to make good decisions while simultaneously remembering that we are not engaging in abstract exercises, but that we are having real effects on people and the environment. In our personal lives, it would be unwise not to shop around for the best price when making a major purchase, or to fail to think through our options when making a major life decision. It is equally foolish for government to fail to fully examine alternative policies when making regulatory decisions with life-or-death consequences. This reality has been recognized by four successive presidential administrations. Since 1981, the cost-benefit analysis of major regulations has been required by presidential order. Over the past twenty-five years, however, environmental and other progressive groups have declined to participate in the key governmental proceedings concerning the cost-benefit analysis of federal regulations, instead preferring to criticize the technique from the outside. The resulting asymmetry in political participation has had profound negative consequences, both for the state of federal regulation and for the technique of cost-benefit analysis itself. Ironically, this state of affairs has left progressives open to the charge of rejecting reason, when in fact strong environmental and public health pro-grams are often justified by cost-benefit analysis. It is time for progressive groups, as well as ordinary citizens, to retake the high ground by embracing and reforming cost-benefit analysis. The difference between being unthinking—failing to use the best tools to analyze policy—and unfeeling—making decisions without compassion—is unimportant: Both lead to bad policy. Calamities can result from the failure to use either emotion or reason. Our emotions provide us with the grounding for our principles, our innate interconnectedness, and our sense of obligation to others. We use our powers of reason to build on that emotional foundation, and act effectively to bring about a better world.

#### Trash ontology does not cause conflict- may be necessary but not sufficient

Volf 2002 Miroslav Volf (Henry B. Wright Professor of Theology at Yale Divinity School since 1998) Journal of Ecumenical Studies 1-1-02

Though “otherness”–cultural, ethnic, religious, racial difference–is an important factor in our relations with others, we should not overestimate it as a cause of conflict. During the war in the former Yugoslavia in the early 1990′s, I was often asked, “What is this war about? Is it about religious and cultural differences? Is it about economic advantage? Is it about political power? Is it about land?” The correct response was, of course, that the war was about all of these things. Monocausal explanations of major eruptions of violence are rarely right. Moreover, various causes are intimately intertwined, and each contributes to others. That holds true also for otherness, which I am highlighting here. However, neither should we underestimate otherness as a factor. The contest for political power, for economic advantage, and for a share of the land took place between people who belonged to discrete cultural and ethnic groups. Part of the goal of the war in the former Yugoslavia was the creation of ethnically clean territories with economic and political autonomy. The importance of “otherness” is only slightly diminished if we grant that the sense of ethnic and religious belonging was manipulated by unscrupulous, corrupt, and greedy politicians for their own political and economic gain. The fact that conjured fears for one’s identity could serve to legitimize a war whose major driving force lay elsewhere is itself a testimony to how much “otherness” matters.

# Rd 4 v Pitt

### Off

#### 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 aff decreases regulations, not restrictions. 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."

#### Limits are key to clash and a precursor to debate- anything could inhibit production- limiting this portion of the topic is good- best neg args are all on the financial incentives portion solves their fusion

### Off

#### Obama PC causes immigration reform pass- has to keep coalition together

Robinson 2-6 [Eugene Robinson 2-6-2013 Springfield News-Leader “Imagine this: Immigration reform in next few months” http://www.news-leader.com/article/20130207/OPINIONS04/302070033/Imagine-this-Immigration-reform-in-next-few-months?nclick\_check=1]

Given the extensive overlap between the “principles” laid out by a bipartisan group of senators and those offered by President Obama, I believe there is a strong possibility that immigration reform can be accomplished within the next few months. But it still won’t be easy.¶ Sen. Marco Rubio, R-Fla., the key member of the Senate’s pro-reform “Gang of Eight,” is being pilloried from the right for facing economic, sociological and political reality.¶ Sen. David Vitter, R-La., called Rubio “amazingly naive on this issue” and also “nuts.” Some of the conservative commentariat has been less reserved.¶ Many establishment figures in the party accept that the GOP cannot thrive, and perhaps cannot even survive, if the nation’s biggest minority group becomes a permanent part of the Democratic Party coalition. They understand Rubio’s analysis that immigration is a “threshold” issue for Latino voters — that if Republicans are seen as uncompromising and even hostile on this issue, many Latinos will not even give the party a hearing on the rest of its philosophy and agenda.¶ The central task of immigration reform is the most controversial: designing some sort of legal status for the 11 million.¶ Critics on the right complain that this is unfair to would-be immigrants who are “waiting in line” to come into the country by following the rules. Some would have to wait years.¶ Truly comprehensive reform would include designing a viable legal pathway for those who want to come here and contribute their ambition, determination and skills. No such pathway exists now.¶ Far as I can tell, there is little meaningful difference between the Gang of Eight’s plan and Obama’s plan. You will hear lots of noise about border security and enforcement. Feel free to pay no attention.¶ Pro- and anti-reform Republicans will both agree that the Obama administration is somehow weak on enforcement.¶ This is a laughable fiction; border security is much tougher under Obama than under his predecessors, and deportations have soared.¶ Republicans are eager to talk about some kind of temporary-worker program to accommodate those who come here with the intention of working for a time and then return to their home countries. Obama’s framework for reform does not include a guest-worker provision, but the White House has indicated a willingness to look at the possibility.¶ Obama and a group of influential senators of both parties will try to work together to bring 11 million people out of the shadows. Our government is tackling a big problem and may actually solve it. Imagine that.

#### Democrats hate the plan

Bryce ‘10

Robert Bryce, has been writing about energy for nearly two decades. His articles have appeared in dozens of publications ranging from The Atlantic Monthly to The Guardian, and The Nation to The American Conservative. He is the author of Pipe Dreams: Greed, Ego, and the Death of Enron, and Cronies: Oil, the Bushes, and the Rise of Texas, America’s Superstate. Bryce is a fellow at the Institute for Energy Research, as well as the managing editor of Energy Tribune and a contributing writer for The Texas Observer.

“Power Hungry: The Myths of "Green" Energy and the Real Fuels of the Future” pg 269-270, jj

The answers are here. What’s lacking aren’t answers, but political will. That’s not to say the challenge of handling nuclear waste can be solved easily or cheaply. Coming up with a long-term solution will take years of work, lots of money, and sustained support from Congress. And that’s the crux of the problem: Nuclear power requires strong governmental involvement. One analyst summed it up well when he told me, “The Re publicans like nuclear, but they hate government. The Democrats like government but they hate nuclear power And those conflicting views have contributed to the stalemate on nuclear power development in the United States.That stalemate is most obvious when it comes to dealing with nu clear waste. In 2009, the Obama administration—bowing to pressure from Senate Majority Leader Harry Reid, who hails from Nevada— decimated funding for the waste disposal site at Yucca Mountain. Ad ministration officials said they were abandoning the project and would begin looking for other waste sites.3 Reids political power play has left the United States without a long-term program or even the beginnings of one to deal with its spent nuclear fuel.4 Reid’s NIMBY posturing may be handy politics for Nevada, but it effectively renders moot a two- decade-old federal law that requires the federal government to take pos session of the high-level waste produced by the country’s nuclear power plants. It also means that the two decades and $13.5 billion of taxpayers’ money that has been spent researching and developing the site at Yucca Mountain (which is ready for use and only awaits licensing) has effec tively gone up in smoke— thereby adding just a bit more carbon dioxide to the atmosphere.5

#### Solves US-India relations

**LA Times**, 11/9/**20**12 (Other countries eagerly await U.S. immigration reform, p. http://latimesblogs.latimes.com/world\_now/2012/11/us-immigration-reform-eagerly-awaited-by-source-countries.html)

"Comprehensive immigration reform will see expansion of skilled labor visas," predicted B. Lindsay Lowell, director of policy studies for the Institute for the Study of International Migration at Georgetown University. A former research chief for the congressionally appointed Commission on Immigration Reform, Lowell said he expects to see at least a fivefold increase in the number of highly skilled labor visas that would provide "a significant shot in the arm for India and China." There is widespread consensus among economists and academics that skilled migration fosters new trade and business relationships between countries and enhances links to the global economy, Lowell said. "Countries like India and China weigh the opportunities of business abroad from their expats with the possibility of brain drain, and I think they still see the immigration opportunity as a bigger plus than not," he said.

#### US/India relations averts South Asian nuclear war

Schaffer, Spring **200**2 (Teresita – Director of the South Asia Program at the Center for Strategic and International Security, Washington Quarterly, p. Lexis)

Washington's increased interest in India since the late 1990s reflects India's economic expansion and position as Asia's newest rising power. New Delhi, for its part, is adjusting to the end of the Cold War. As a result, both giant democracies see that they can benefit by closer cooperation. For Washington, the advantages include a wider network of friends in Asia at a time when the region is changing rapidly, as well as a stronger position from which to help calm possible future nuclear tensions in the region. Enhanced trade and investment benefit both countries and are a prerequisite for improved U.S. relations with India. For India, the country's ambition to assume a stronger leadership role in the world and to maintain an economy that lifts its people out of poverty depends critically on good relations with the United States.

#### Extinction

Starr ’11 (Consequences of a Single Failure of Nuclear Deterrence by Steven Starr February 07, 2011, Associate member of the Nuclear Age Peace Foundation \* Senior Scientist for PSR

Only a single failure of nuclear deterrence is required to start a nuclear war, and the consequences of such a failure would be profound. Peer-reviewed studies predict that less than 1% of the nuclear weapons now deployed in the arsenals of the Nuclear Weapon States, if detonated in urban areas, would immediately kill tens of millions of people, and cause long-term, catastrophic disruptions of the global climate and massive destruction of Earth’s protective ozone layer. The result would be a global nuclear famine that could kill up to one billion people. A full-scale war, fought with the strategic nuclear arsenals of the United States and Russia, would so utterly devastate Earth’s environment that most humans and other complex forms of life would not survive. Yet no Nuclear Weapon State has ever evaluated the environmental, ecological or agricultural consequences of the detonation of its nuclear arsenals in conflict. Military and political leaders in these nations thus remain dangerously unaware of the existential danger which their weapons present to the entire human race. Consequently, nuclear weapons remain as the cornerstone of the military arsenals in the Nuclear Weapon States, where nuclear deterrence guides political and military strategy. Those who actively support nuclear deterrence are trained to believe that deterrence cannot fail, so long as their doctrines are observed, and their weapons systems are maintained and continuously modernized. They insist that their nuclear forces will remain forever under their complete control, immune from cyberwarfare, sabotage, terrorism, human or technical error. They deny that the short 12-to-30 minute flight times of nuclear missiles would not leave a President enough time to make rational decisions following a tactical, electronic warning of nuclear attack. The U.S. and Russia continue to keep a total of 2000 strategic nuclear weapons at launch-ready status – ready to launch with only a few minutes warning. Yet both nations are remarkably unable to acknowledge that this high-alert status in any way increases the probability that these weapons will someday be used in conflict. How can strategic nuclear arsenals truly be “safe” from accidental or unauthorized use, when they can be launched literally at a moment’s notice? A cocked and loaded weapon is infinitely easier to fire than one which is unloaded and stored in a locked safe. The mere existence of immense nuclear arsenals, in whatever status they are maintained, makes possible their eventual use in a nuclear war. Our best scientists now tell us that such a war would mean the end of human history. We need to ask our leaders: Exactly what political or national goals could possibly justify risking a nuclear war that would likely cause the extinction of the human race? However, in order to pose this question, we must first make the fact known that existing nuclear arsenals – through their capacity to utterly devastate the Earth’s environment and ecosystems – threaten continued human existence. Otherwise, military and political leaders will continue to cling to their nuclear arsenals and will remain both unwilling and unable to discuss the real consequences of failure of deterrence. We can and must end the silence, and awaken the peoples of all nations to the realization that “nuclear war” means “global nuclear suicide”. A Single Failure of Nuclear Deterrence could lead to: \* A nuclear war between India and Pakistan; \* 50 Hiroshima-size (15 kiloton) weapons detonated in the mega-cities of both India and Pakistan (there are now 130-190 operational nuclear weapons which exist in the combined arsenals of these nations); \* The deaths of 20 to 50 million people as a result of the prompt effects of these nuclear detonations (blast, fire and radioactive fallout); \* Massive firestorms covering many hundreds of square miles/kilometers (created by nuclear detonations that produce temperatures hotter than those believed to exist at the center of the sun), that would engulf these cities and produce 6 to 7 million tons of thick, black smoke; \* About 5 million tons of smoke that would quickly rise above cloud level into the stratosphere, where strong winds would carry it around the Earth in 10 days; \* A stratospheric smoke layer surrounding the Earth, which would remain in place for 10 years; \* The dense smoke would heat the upper atmosphere, destroy Earth’s protective ozone layer, and block 7-10% of warming sunlight from reaching Earth’s surface; \* 25% to 40% of the protective ozone layer would be destroyed at the mid-latitudes, and 50-70% would be destroyed at northern and southern high latitudes; \* Ozone destruction would cause the average UV Index to increase to 16-22 in the U.S, Europe, Eurasia and China, with even higher readings towards the poles (readings of 11 or higher are classified as “extreme” by the U.S. EPA). It would take 7-8 minutes for a fair skinned person to receive a painful sunburn at mid-day; \* Loss of warming sunlight would quickly produce average surface temperatures in the Northern Hemisphere colder than any experienced in the last 1000 years; \* Hemispheric drops in temperature would be about twice as large and last ten times longer then those which followed the largest volcanic eruption in the last 500 years, Mt. Tambora in 1816. The following year, 1817, was called “The Year Without Summer”, which saw famine in Europe from massive crop failures; \* Growing seasons in the Northern Hemisphere would be significantly shortened. It would be too cold to grow wheat in most of Canada for at least several years; \* World grain stocks, which already are at historically low levels, would be completely depleted; grain exporting nations would likely cease exports in order to meet their own food needs; \* The one billion already hungry people, who currently depend upon grain imports, would likely starve to death in the years following this nuclear war; \* The total explosive power in these 100 Hiroshima-size weapons is less than 1% of the total explosive power contained in the currently operational and deployed U.S. and Russian nuclear forces.

### Off

#### Electricity prices are dropping and will stay low

Dallas Burtraw, one of the nation’s foremost experts on environmental regulation in the electricity sector, and studies electricity restructuring, competition, and economic deregulation, “Falling Emissions and Falling Prices: Expectations for the Domestic Natural Gas Boom,” Common Resources, August 21, 2012, <http://common-resources.org/2012/falling-emissions-and-falling-prices-expectations-for-the-domestic-natural-gas-boom/>, accessed 10-25-2012.

Moreover, the boom in domestic natural gas production could have even more immediate affects for U.S. electricity consumers. The increased supply of gas is expected to lower natural gas prices and retail electricity prices over the next 20 years, according to a [new RFF Issue Brief](http://www.rff.org/Publications/Pages/PublicationDetails.aspx?PublicationID=22019). These price decreases are expected to be even larger if demand for electricity continues on a slow-growth trajectory brought on by the economic downturn and the increased use of energy efficiency. For example, RFF analysis found that delivered natural gas prices would have been almost 35% higher in 2020 if natural gas supply projections had matched the lower estimates released by the U.S. Energy Information Administration (EIA) in 2009. Instead, with an increased gas supply, consumers can expect to pay $4.9 per MMBtu for delivered natural gas in 2020 instead of $6.6 per MMBtu. These trends are even more exaggerated if demand for electricity were to increase to levels projected by the EIA just three years ago, in 2009.This decrease in natural gas prices is expected to translate into a decrease in retail electricity prices for most electricity customers in most years out to 2020. Compared to the world with the lower gas supply projections, average national electricity prices are expected to be almost 6% lower, falling from 9.25 cents to 8.75 cents per kilowatt-hour in 2020. Residential, commercial, and industrial customers are all expected to see a price decrease, with the largest price changes occurring in parts of the country that have competitive electricity markets. All of these prices decreases translate into real savings for most electricity customers. The savings are largest for commercial customers, who stand to save $33.9 Billion (real $2009) under the new gas supply projections in 2020. Residential customers also stand to save big, with estimates of $25.8 Billion (real $2009) in savings projected for 2020.

#### New nuclear reactors drive up electricity prices

Mark Cooper, SENIOR FELLOW FOR ECONOMIC ANALYSIS INSTITUTE FOR ENERGY AND THE ENVIRONMENT¶ VERMONT LAW SCHOOL, "THE ECONOMICS OF NUCLEAR REACTORS: RENAISSANCE OR RELAPSE?," 2009, http://www.vermontlaw.edu/Documents/Cooper%20Report%20on%20Nuclear%20Economics%20FINAL%5B1%5D.pdf

Within the past year, estimates of the cost of nuclear power from a new generation of ¶ reactors have ranged from a low of 8.4 cents per kilowatt hour (kWh) to a high of 30 cents. This ¶ paper tackles the debate over the cost of building new nuclear reactors, with the key findings as ¶ follows: ¶ • The initial cost projections put out early in today’s so-called “nuclear renaissance” were about ¶ one-third of what one would have expected, based on the nuclear reactors completed in the ¶ 1990s. ¶ • The most recent cost projections for new nuclear reactors are, on average, over four times as high as the initial “nuclear renaissance” projections. ¶ • There are numerous options available to meet the need for electricity in a carbon-constrained ¶ environment that are superior to building nuclear reactors. Indeed, nuclear reactors are the worst option from the point of view of the consumer and society. ¶ • The low carbon sources that are less costly than nuclear include efficiency, cogeneration, ¶ biomass, geothermal, wind, solar thermal and natural gas. Solar photovoltaics that are presently ¶ more costly than nuclear reactors are projected to decline dramatically in price in the next ¶ decade. Fossil fuels with carbon capture and storage, which are not presently available, are ¶ projected to be somewhat more costly than nuclear reactors. ¶ • Numerous studies by Wall Street and independent energy analysts estimate efficiency and ¶ renewable costs at an average of 6 cents per kilowatt hour, while the cost of electricity from ¶ nuclear reactors is estimated in the range of 12 to 20 cents per kWh. ¶ • The additional cost of building 100 new nuclear reactors, instead of pursuing a least cost ¶ efficiency-renewable strategy, would be in the range of $1.9-$4.4 trillion over the life the ¶ reactors. ¶ Whether the burden falls on ratepayers (in electricity bills) or taxpayers (in large subsidies), ¶ incurring excess costs of that magnitude would be a substantial burden on the national economy and ¶ add immensely to the cost of electricity and the cost of reducing carbon emissions.

#### Low electricity prices sustain U.S. manufacturing which is key to the economy – re-shoring, key industries

Perry 7/31/12 (Mark, Prof of Economics @ Univ. of Michigan, "America's Energy Jackpot: Industrial Natural Gas Prices Fall to the Lowest Level in Recent History," http://mjperry.blogspot.com/2012/07/americas-energy-jackpot-industrial.html)

Building petrochemical plants could suddenly become attractive in the United States. Manufacturers will "reshore" production to take advantage of low natural gas and electricity prices. Energy costs will be lower for a long time, giving a competitive advantage to companies that invest in America, and also helping American consumers who get hit hard when energy prices spike.¶ After years of bad economic news, the natural gas windfall is very good news. Let's make the most of it." ¶ The falling natural gas prices also make the predictions in this December 2011 study by PriceWaterhouseCoopers, "Shale gas: A renaissance in US manufacturing?"all the more likely: ¶ U.S. manufacturing companies (chemicals, metals and industrial) could employ approximately one million more workers by 2025 because of abundant, low-priced natural gas.¶ Lower feedstock and energy cost could help U.S. manufacturers reduce natural gas expenses by as much as $11.6 billion annually through 2025.¶ MP: As I have emphasized lately, America's ongoing shale-based energy revolution is one of the real bright spots in an otherwise somewhat gloomy economy, and provides one of the best reasons to be bullish about America's future. The shale revolution is creating thousands of well-paying, shovel-ready jobs in Texas, North Dakota and Ohio, and thousands of indirect jobs in industries that support the shale boom (sand, drilling equipment, transportation, infrastructure, steel pipe, restaurants, etc.). In addition, the abundant shale gas is driving down energy prices for industrial, commercial, residential and electricity-generating users, which frees up billions of dollars that can be spent on other goods and services throughout the economy, providing an energy-based stimulus to the economy. ¶ Cheap natural gas is also translating into cheaper electricity rates, as low-cost natural gas displaces coal. Further, cheap and abundant natural gas is sparking a manufacturing renaissance in energy-intensive industries like chemicals, fertilizers, and steel. And unlike renewable energies like solar and wind, the natural gas boom is happening without any taxpayer-funded grants, subsidies, credits and loans. Finally, we get an environmental bonus of lower CO2 emissions as natural gas replaces coal for electricity generation. Sure seems like a win, win, win, win situation to me.

#### Global economic crisis causes war - strong statistical support - also causes great power transitions.

Jedediah Royal, 2010, Director of Cooperative Threat Reduction at the U.S. Department of Defense, “Economic Integration, Economic Signaling and the Problem of Economic Crises,” in Economics of War and Peace: Economic, Legal and Political Perspectives, ed. Goldsmith and Brauer, p. 213-14

Less intuitive is how periods of economic decline may increase the likelihood of external conflict. Political science literature has contributed a moderate degree of attention to the impact of economic decline and the security and defence behaviour of interdependent states. Research in this vein has been considered at systemic, dyadic and national levels. Several notable contributions follow. First, on the systemic level, Pollins (2008) advances Modelski and Thompson’s (1996) work on leadership cycle theory, finding that rhythms in the global economy are associated with the rise and fall of pre-eminent power and the often bloody transition from one pre-eminent leader to the next. As such, exogenous shocks such as economic crises could usher in a redistribution of relative power (see also Gilpin, 10981) that leads to uncertainty about power balances, increasing the risk of miscalculation (Fearon, 1995). Alternatively, even a relatively certain redistribution of power could lead to a permissive environment for conflict as a rising power may seek to challenge a declining power (Werner, 1999). Seperately, Polllins (1996) also shows that global economic cycles combined with parallel leadership cycles impact the likelihood of conflict among major, medium, and small powers, although he suggests that the causes and connections between global economic conditions and security conditions remain unknown. Second, on a dyadic level, Copeland’s (1996,2000) theory of trade expectations suggests that ‘future expectation of trade’ is a significant variable in understanding economic conditions and security behavior of states. He argues that interdependent states are likely to gain pacific benefits from trade so long as they have an optimistic view of future trade relations. However, if the expectation of future trade decline, particularly for difficult to replace items such as energy resources, the likelihood for conflict increases , as states will be inclined to use force to gain access to those resources. Crises could potentially be the trigger for decreased trade expectations either on its own or because it triggers protectionist moves by interdependent states. Third, others have considered the link between economic decline and external armed conflict at a national level. Blomberg and Hess (2002) find a strong correlation between internal conflict and external conflict, particularly during periods of economic downturn. They write, The linkages between internal and external conflict and prosperity are strong and mutually reinforcing. Economic conflict tends to spawn internal conflict, which in turn returns the favour. Moreover, the presence of a recession tends to amplify the extent to which international and external conflicts self-reinforce each other. (Blomberg & Hess, 2002, p.89). Economic decline has also been linked with an increase in the likelihood of terrorism (Blomberg, Hess, & Weerapana, 2004), which has the capacity to spill across borders and lead to external tensions. Furthermore, crises generally reduce the popularity of a sitting government. ‘Diversionary theory’ suggests that, when facing unpopularity arising from economic decline, sitting governments have increased incentives to create a ‘rally round the flag’ effect. Wang (1996), DeRouen (1995), and Blomberg, Hess and Thacker (2006) find supporting evidence showing that economic decline and use of force are at least indirectly correlated. Gelpi (1997) Miller (1999) and Kisanganie and Pickering (2009) suggest that the tendency towards diversionary tactics are greater for democratic states than autocratic states, due to the fact that democratic leaders are generally more susceptible to being removed from office due to lack of domestic support. DeRouen (2000) has provided evidence showing that periods of weak economic performance in the United States, and thus weak presidential popularity, are statistically linked to an increase in the use of force.

### Off

#### Text: The U.S. Supreme Court should rule that NRC should streamline the licensing process and favor the approval of new Liquid Fluoride Thorium Reactors on the basis that current regulations violate international law.

#### Supreme court can rule against restrictions on energy production

Craig 2010 (Robin Kundis Craig, Attorneys' Title Professor and Associate Dean for Environmental Programs at Florida State University College of Law, Summer 2010, “MULTISTATE DECISION MAKING FOR RENEWABLE ENERGY AND TRANSMISSION: SPOTLIGHT ON COLORADO, NEW MEXICO, UTAH, AND WYOMING: Constitutional Contours for the Design and Implementation of Multistate Renewable Energy Programs and Projects,” University of Colorado Law Review, Lexis)

A number of dormant Commerce Clause cases have involved energy production, and they systematically conclude that states cannot create legal requirements or preferences based on the source of the fuel or energy. In Wyoming v. Oklahoma, for example, the U.S. Supreme Court struck down an Oklahoma statute that required Oklahoma coal-fired electric power plants producing power for sale in Oklahoma to burn a mixture of coal containing at least ten percent Oklahoma-mined coal. 121 Moreover, the "savings clause" of the Federal Power Act did not prevent the conclusion that the Oklahoma statute was unconstitutional. 122 Similarly, the U.S. District Court for the Northern District of Illinois concluded that a Clean Air Act compliance plan that favored Illinois coalviolated the dormant Commerce Clause. 123¶ Nor can states "hoard" state-created energy within their borders. Thus, in 1982, the U.S. Supreme Court concluded that New Hampshire could not constitutionally restrict interstate transportation of hydroelectric power generated in New Hampshire. 124

#### The counterplan is not a *reduction*—it requires executive/congressional acquiescence.

Spiro, 2001 (Peter J. Spiro, Professor, Hofstra University School of Law; Visiting Professor, University of Texas School of Law, Texas Law Review, April, lexis)

The increments approach answers these objections, at the same time that it affirms the value of constitutionalism. It presents, first of all, a determinate method of constitutional location. Unlike translation exercises, the increments model substantially confines the possible discretion of individual constitutional actors, including the judiciary. Working from a premise of historical situatedness, the theory denies the possibility of independent constitutional determination. That is not to deny the inevitability of constitutional change. But all constitutional actors work from a baseline, departures from which can be challenged and rejected by other constitutional actors. Constitutional norms are resolved only by the interplay of those actors. The content of constitutional norms will usually be reflected in institutional action, but one cannot necessarily find the law by reference to the action of any single institution alone. Even if the Supreme Court attempted to exploit the discretion afforded it by a translation model, its pronouncements amount to mere artifacts in the absence of acceptance by other actors. The increments model thus answers the primary volley of the originalists against countermajoritarian judicial adaptation of the constitutional text. Such adaptation will not prevail where it is rejected by other actors.

#### CP solves, doesn’t link to legitimacy, and provides a workable framework to incorporate international law.

Greffenius, 2007 (Robert Greffenius, J.D. Candidate, American University, Washington College of Law, American University International Law Review, May)

Scholars have written about Erie almost ad nauseam, to the point where it seems difficult to add anything new. 146 However, no one has yet connected the framework used in Erie, binding federal courts to state common law, to establish a similar framework for international law. 147 This Comment has, in essence, already argued for an International Erie doctrine to govern analysis of ICJ decisions, and possibly future international adjudicatory bodies' decisions that have presumptively binding authority. Though characterizing the relational authority of the ICJ vis-a-vis the United States in terms of an "International Erie" theory may seem radical, in truth, it offers a method to harmonize current case law in the Supreme Court with the understanding of international legal scholars. 148 This section explores the Supreme Court's option of providing a workable framework for courts to consider future international bodies' dispositions of cases by asserting an International Erie doctrine. [\*973] Even post-Medellin, the Supreme Court faces a conflict between its current holdings and ICJ decisions which will at some point likely have binding effect on the Supreme Court. The primary holding of Sanchez-Llamas is that U.S. courts do not need to adapt their procedure to comply with ICJ decisions. 149 Expounding a theory of International Erie would retain the essential holding of Sanchez-Llamas while still maintaining room to give effect to what the Supreme Court can characterize as the essential holding of Avena. Though the Mexican nationals themselves would likely argue that the primary holding of the ICJ in Avena was that the United States may not apply rules of procedural default, the Supreme Court may instead describe the essential holding as concerning solely an individual's right of action under the VCCR and the meaning of "without delay." 150 Looking at the ICJ decision after announcing the concept of an International Erie, its application would have been, and still may one day be, easy. The Supreme Court could simply say that the ICJ exercises a valid power when it interprets the substantive international law provisions of a treaty. However, just as in Erie, federal courts retain the power to employ their own federal rules of procedure, so both state and federal courts retain the power to employ local rules of procedure, even in the international context. 151 Thus, the Supreme Court may ignore the ICJ's interpretation of [\*974] proper "review and reconsideration" because that aspect of the holding infringes on domestic procedural law. 152 CONCLUSION While Medellin threw the role of the treaty in domestic law into upheaval, even members of the majority recognized the continuing importance of U.S. international commitments in domestic law. 153 Undeniably, the progression of ICJ cases from Breard through LaGrand and finally to Avena increased the tension between domestic courts' interpretation and the ICJ's interpretation of the VCCR, and thus the tension between the United States' international commitments and domestic enforcement. The International Erie doctrine explored in this Comment would provide the Court with workable approach to maintain domestic authority over issues of international law while still incorporating the binding and valid interpretation of that law by international tribunals. While, the Supreme Court avoided resolving this tension in Medellin, thus leaving the difficult issue for a future Court, the recurring nature of this issue makes it unlikely that Medellin permanently put the matter to rest. The Court should consider the International Erie doctrine as a theory that could finally allow for the settlement of this issue conclusively.

#### International law inevitable—incorporation, like the CP, prevents collapse of rule of law and economic collapse.

Martinez, 2003 (Assistant Professor, Stanford Law School, November, 56 Stan. L. Rev. 429)

The fact is that judicial bodies around the world are interacting with each other every day. These interactions take many forms - a Canadian court reviews a NAFTA arbitration panel award obtained by a U.S. investor against the government of Mexico;n60 a court in Florida hearing a civil suit against a former Latin American military officer now living in the United States must consider whether to follow decisions of the International Criminal Tribunal for the Former Yugoslavia on the scope of military commanders' liability for torture committed by their subordinates; n61 a court in Texas hearing a bankruptcy case must decide how to react to parallel suits pending in England and the Cayman Islands. n62 Courts cannot avoid these interactions. A court may decide to ignore the existence of a foreign or international court, but that in itself is a choice, and one which shapes the contours of the emerging international system. Over time, a habitual practice of parochially disregarding the existence of other courts will lead to chaos and dysfunction. It is not too far-fetched to say that property interests will be compromised and business relations impaired, human rights will be violated and legal obligations will be thrown into doubt. We will have an international judicial system, but it will be a severely dysfunctional one. Such an anarchic outcome seems undesirable, but how can it be avoided? Is this system doomed to settle into chaotic behavior, or can self-organization by courts make it work?

#### Rule of law extinction.

Rhyne, 1958 (Charles S. Rhyne, Law Day Speech for Voice of America delivered on the first Law Day, May 1 abanet.org/publiced/lawday/rhyne58.html)

The tremendous yearning of all peoples for peace can only be answered by the use of law to replace weapons in resolving international disputes. We in our country sincerely believe that [HU]mankind’s best hope for preventing the tragic consequences of nuclear-satellite-missile warfare is to persuade the nations of the entire world to submit all disputes to tribunals of justice for all adjudication under the rule of law. We lawyers of America would like to join lawyers from every nation in the world in fashioning an international code of law so appealing that sentiment will compel its general acceptance. Man’s relation to man is the most neglected field of study, exploration and development in the world community. It is also the most critical. The most important basic fact of our generation is that the rapid advance of knowledge in science and technology has forced increased international relationships in a shrunken and indivisible world. Men must either live together in peace or in modern war we will surely die together. History teaches that the rule of law has enabled mankind to live together peacefully within nations and it is clear that this same rule of law offers our best hope as a mechanism to achieve and maintain peace between nations. The lawyer is the technician in man’s relationship to man. There exists a worldwide challenge to our profession to develop law to replace weapons before the dreadful holocaust of nuclear war overtake our people. It is said that an idea can be more powerful than an atom because strength today resides in man’s mind—not his muscle. We lawyers of the world must take the idea of peace under the rule of law and make it a force superior to weapons and thus outlaw wars of weapons. Law offers the best hope for order in a disordered world. The law of force or the force of law will rule the world. In the field of human conduct the law has never confessed failure. The struggle for a world ruled by law must go on with increased intensity. We must prove that the genius of man in the field of science and technology has not so far outstripped his inventiveness in the sphere of human relations as to make catastrophe inevitable. If man can conquer space he can also solve the need for legal machinery to insure universal and lasting peace. In our country ignorance of the value of law in international relations and what it could do for the people of the world is appalling. A major purpose of “Law Day-U.S.A.” is therefore to demonstrate to our people that the need for law in the world community is the greatest gap in the growing structure of civilization. And we lawyers of America are anxious to work with lawyers and men of good of all nations in filling this gap in that structure. We believe that no greater challenge exists for any profession and that no greater service to mankind can be performed.

\*This evidence uses gender-biased language which we do not endorse

### Warming

#### Tipping points theory is wrong---zero data can reliably identify specific tipping points

Andrew C. Revkin 9, senior fellow at Pace University's Pace Academy for Applied Environmental Studies, has taught at Columbia's Graduate School of Journalism and the Bard College Center for Environmental Policy, March 29, 2009, “Among Climate Scientists, a Dispute Over ‘Tipping Points’,” The New York Times, online: http://www.nytimes.com/2009/03/29/weekinreview/29revkin.html?\_r=1&pagewanted=print

But the idea that the planet is nearing tipping points — thresholds at which change suddenly becomes unstoppable — has driven a wedge between scientists who otherwise share deep concerns about the implications of a human-warmed climate.

Environmentalists and some climate experts are increasingly warning of impending tipping points in their efforts to stir public concern. The term confers a sense of immediacy and menace to potential threats from a warming climate — dangers that otherwise might seem too distant for people to worry about.

But other scientists say there is little hard evidence to back up specific predictions of catastrophe. They worry that the use of the term “tipping point” can be misleading and could backfire, fueling criticism of alarmism and threatening public support for reducing greenhouse gas emissions.

“I think a lot of this threshold and tipping point talk is dangerous,” said Kenneth Caldeira, an earth scientist at Stanford University and the Carnegie Institution and an advocate of swift action to reduce carbon dioxide emissions. “If we say we passed thresholds and tipping points today, this will be an excuse for inaction tomorrow,” he said.

While studies of climate patterns in the distant past clearly show the potential for drastic shifts, these scientists say, there is enormous uncertainty in making specific predictions about the future.

In some cases, there are big questions about whether climate-driven disasters — like the loss of the Amazon or a rise in sea levels of several yards in a century — are even plausible. And even in cases where most scientists agree that rising temperatures could lead to unstoppable change, no one knows where the thresholds lie that would set off such shifts.

#### No impact---mitigation and adaptation will solve---no tipping point or “1% risk” args

Robert O. Mendelsohn 9, the Edwin Weyerhaeuser Davis Professor, Yale School of Forestry and Environmental Studies, Yale University, June 2009, “Climate Change and Economic Growth,” online: http://www.growthcommission.org/storage/cgdev/documents/gcwp060web.pdf

The heart of the debate about climate change comes from a number of warnings from scientists and others that give the impression that human-induced climate change is an immediate threat to society (IPCC 2007a,b; Stern 2006). Millions of people might be vulnerable to health effects (IPCC 2007b), crop production might fall in the low latitudes (IPCC 2007b), water supplies might dwindle (IPCC 2007b), precipitation might fall in arid regions (IPCC 2007b), extreme events will grow exponentially (Stern 2006), and between 20–30 percent of species will risk extinction (IPCC 2007b). Even worse, there may be catastrophic events such as the melting of Greenland or Antarctic ice sheets causing severe sea level rise, which would inundate hundreds of millions of people (Dasgupta et al. 2009). Proponents argue there is no time to waste. Unless greenhouse gases are cut dramatically today, economic growth and well‐being may be at risk (Stern 2006).

These statements are largely alarmist and misleading. Although climate change is a serious problem that deserves attention, society’s immediate behavior has an extremely low probability of leading to catastrophic consequences. The science and economics of climate change is quite clear that emissions over the next few decades will lead to only mild consequences. The severe impacts predicted by alarmists require a century (or two in the case of Stern 2006) of no mitigation. Many of the predicted impacts assume there will be no or little adaptation. The net economic impacts from climate change over the next 50 years will be small regardless. Most of the more severe impacts will take more than a century or even a millennium to unfold and many of these “potential” impacts will never occur because people will adapt. It is not at all apparent that immediate and dramatic policies need to be developed to thwart long‐range climate risks. What is needed are long‐run balanced responses.

#### No extinction from climate change

NIPCC 11 – the Nongovernmental International Panel on Climate Change, an international panel of nongovernment scientists and scholars, March 8, 2011, “Surviving the Unprecedented Climate Change of the IPCC,” online: http://www.nipccreport.org/articles/2011/mar/8mar2011a5.html

In a paper published in Systematics and Biodiversity, Willis et al. (2010) consider the IPCC (2007) "predicted climatic changes for the next century" -- i.e., their contentions that "global temperatures will **increase by 2-4°C** and possibly beyond, sea levels will rise (~1 m ± 0.5 m), and atmospheric CO2 will increase by up to 1000 ppm" -- noting that it is "widely suggested that the magnitude and rate of these changes will result in many plants and animals going extinct," citing studies that suggest that "within the next century, over 35% of some biota will have gone extinct (Thomas et al., 2004; Solomon et al., 2007) and there will be extensive die-back of the tropical rainforest due to climate change (e.g. Huntingford et al., 2008)."

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."

#### Climate change doesn’t collapse the economy or cause conflict

Thomas Bernauera et al (Center for Comparative and International Studies (CIS) and Institute for Environmental Decisions (IED) and b University of Bern Department of Economics and Oeschger Institute for Climate Change Research) 2010 “Climate Change, Economic Growth, and Conflict” http://climsec.prio.no/papers/Climate\_Conflict\_BKKR\_Trondheim\_2010.pdf

Despite many claims by high-ranking policy-makers and some scientists that climate change breeds violent conflict, the existing empirical literature has so far not been able to identify a systematic, causal relationship of this kind. This may either reflect de facto absence of such a relationship, or it may be the consequence of theoretical and methodological limitations of existing work. We revisit the climate–conflict issue along two lines. First, at the theoretical level we specify the mechanism through which climate change is likely to affect the risk of armed conflict. We focus on the causal chain linking climatic conditions, economic growth, and armed conflict, and also argue that the growth–conflict part of this chain is contingent on political system characteristics. Second, at the methodological level we develop an approach that takes care of endogeneity problems in the climate–economy–conflict relationship. We test our theoretical argument on a global data set for 1950-2004. The results show that the climate change–conflict hypothesis rests on rather shaky empirical foundations: we do find some negative effects of climate change on economic growth, while stronger economic growth is associated with a lower probability of civil conflict. But the climate change effect on growth is not robust to changes in climate indicators and samples. Our results also show that non-democratic countries are more likely to experience armed conflict when economic conditions deteriorate. Our results suggest that investing in climate-friendly economic growth and democracy can qualify as a no-regrets strategy.

#### Too late – current CO2 in the pipeline makes serious climate shifts inevitable for the next 1000 years

Jonathan M. Gitlin, January 27, 2009, “Study: too late to turn back the clock on climate change,” http://arstechnica.com/science/news/2009/01/study-too-late-to-turn-back-the-clock-on-climate-change.ars

This week's PNAS brings with it some bad news on the climate front: even if policy makers and the general public get on board with drastic CO2 emission cuts, it's already too late to prevent serious changes to the planet's climate, and those changed will be remarkably persistent. Those are the findings of a group of researchers from the US, Switzerland, and France. In their paper, they look at the effect of increasing CO2 over millennial time frames, and it's worrisome stuff. Currently, CO2 levels in the atmosphere are around 385 ppm, a 35 percent increase over pre-industrial levels. The most optimistic scenarios arrive at a figure of 450 ppm as the best we might be able to achieve in the coming decades, but even at that level, changes in precipitation patterns, temperature increases, and a rise in sea level appear to be locked in for at least the next thousand years.

### Natives

#### Util good- Calculation is good and doesn’t devalue life

Revesz 2008 Richard L. Revesz (Dean and Lawrence King Professor of Law at New York University School of Law, JD Yale Law School) and Michael A Livermore. (JD NYU School of Law, Executive Director of the Institute for Policy Integrity, and Managing director of the NYU Law Review). Retaking Rationality How Cots-Benefit Analysis Can Better protect the Environment and Our Health. 2008. P. 1-4.

Governmental decisions are also fundamentally different from personal decisions in that they often affect people in the aggregate. In our individual lives, we come into contact with at least some of the consequences of our decisions. If we fail to consult a map, we pay the price: losing valuable time driving around in circles and listening to the complaints of our passengers. We are constantly confronted with the consequences of the choices that we have made. Not so for governments, however, which exercise authority by making decisions at a distance. Perhaps one of the most challenging aspects of governmental decisions is that they require a special kind of compassion—one that can seem, at first glance, cold and calculating, the antithesis of empathy. The aggregate and complex nature of governmental decisions does not address people as human beings, with concerns and interests, families and emotional relationships, secrets and sorrows. Rather, people are numbers stacked in a column or points on a graph, described not through their individual stories of triumph and despair, but by equations, functions, and dose-response curves. The language of governmental decisionmaking can seem to—and to a certain extent does—ignore what makes individuals unique and morally important. But, although the language of bureaucratic decisionmaking can be dehumanizing, it is also a prerequisite for the kind of compassion that is needed in contemporary society. Elaine Scarry has developed a comparison between individual compassion and statistical compassion.' Individual compassion is familiar—when we see a person suffering, or hear the story of some terrible tragedy, we are moved to take action. Statistical compassion seems foreign—we hear only a string of numbers but must comprehend "the concrete realities embedded there."' Individual compassion derives from our social nature, and may be hardwired directly into the human brain.' Statistical compassion calls on us to use our higher reasoning power to extend our natural compassion to the task of solving more abstract—but no less real—problems. Because compassion is not just about making us feel better—which we could do as easily by forgetting about a problem as by addressing it—we have a responsibility to make the best decisions that we can. This book argues that cost-benefit analysis, properly conducted, can improve environmental and public health policy. Cost-benefit analysis—the translation of human lives and acres of forest into the language of dollars and cents—can seem harsh and impersonal. But such an approach is also necessary to improve the quality of decisions that regulators make. Saving the most lives, and best protecting the quality of our environment and our health—in short, exercising our compassion most effectively—requires us to step back and use our best analytic tools. Sometimes, in order to save a life, we need to treat a person like a number. This is the challenge of statistical compassion. This book is about making good decisions. It focuses on the area of environmental, health and safety regulation. These regulations have been the source of numerous and hard-fought controversies over the past several decades, particularly at the federal level. Reaching the right decisions in the areas of environmental protection, increasing safety, and improving public health is clearly of high importance. Although it is admirable (and fashionable) for people to buy green or avoid products made in sweatshops, efforts taken at the individual level are not enough to address the pressing problems we face—there is a vital role for government in tackling these issues, and sound collective decisions concerning regulation are needed. There is a temptation to rely on gut-level decisionmaking in order to avoid economic analysis, which, to many, is a foreign language on top of seeming cold and unsympathetic. For government to make good decisions, however, it cannot abandon reasoned analysis. Because of the complex nature of governmental decisions, we have no choice but to deploy complex analytic tools in order to make the best choices possible. Failing to use these tools, which amounts to abandoning our duties to one another, is not a legitimate response. Rather, we must exercise statistical compassion by recognizing what numbers of lives saved represent: living and breathing human beings, unique, with rich inner lives and an interlocking web of emotional relationships. The acres of a forest can be tallied up in a chart, but that should not blind us to the beauty of a single stand of trees. We need to use complex tools to make good decisions while simultaneously remembering that we are not engaging in abstract exercises, but that we are having real effects on people and the environment. In our personal lives, it would be unwise not to shop around for the best price when making a major purchase, or to fail to think through our options when making a major life decision. It is equally foolish for government to fail to fully examine alternative policies when making regulatory decisions with life-or-death consequences. This reality has been recognized by four successive presidential administrations. Since 1981, the cost-benefit analysis of major regulations has been required by presidential order. Over the past twenty-five years, however, environmental and other progressive groups have declined to participate in the key governmental proceedings concerning the cost-benefit analysis of federal regulations, instead preferring to criticize the technique from the outside. The resulting asymmetry in political participation has had profound negative consequences, both for the state of federal regulation and for the technique of cost-benefit analysis itself. Ironically, this state of affairs has left progressives open to the charge of rejecting reason, when in fact strong environmental and public health pro-grams are often justified by cost-benefit analysis. It is time for progressive groups, as well as ordinary citizens, to retake the high ground by embracing and reforming cost-benefit analysis. The difference between being unthinking—failing to use the best tools to analyze policy—and unfeeling—making decisions without compassion—is unimportant: Both lead to bad policy. Calamities can result from the failure to use either emotion or reason. Our emotions provide us with the grounding for our principles, our innate interconnectedness, and our sense of obligation to others. We use our powers of reason to build on that emotional foundation, and act effectively to bring about a better world.

#### Use of thorium in nuclear reactors will actually create a whole new volume of nuclear waste, not reduce uranium waste, and is not better for the environment. Actually produces U232 which is even worse than U235 currently produced.

Eifion Rees for the Ecologist Guardian Environment Network 2011 Don't believe the spin on thorium being a greener nuclear option http://www.guardian.co.uk/environment/2011/jun/23/thorium-nuclear-uranium

All other issues aside, thorium is still nuclear energy, say environmentalists, its reactors disgorging the same toxic byproducts and fissile waste with the same millennial half-lives. Oliver Tickell, author of Kyoto2, says the fission materials produced from thorium are of a different spectrum to those from uranium-235, but 'include many dangerous-to-health alpha and beta emitters'.¶ Tickell says thorium reactors would not reduce the volume of waste from uranium reactors. 'It will create a whole new volume of radioactive waste from previously radio-inert thorium, on top of the waste from uranium reactors. Looked at in these terms, it's a way of multiplying the volume of radioactive waste humanity can create several times over.'¶ Putative waste benefits – such as the impressive claims made by former Nasa scientist Kirk Sorensen, one of thorium's staunchest advocates – have the potential to be outweighed by a proliferating number of MSRs. There are already 442 traditional reactors already in operation globally, according to the International Atomic Energy Agency. The by-products of thousands of smaller, ostensibly less wasteful reactors would soon add up.¶ Anti-nuclear campaigner Peter Karamoskos goes further, dismissing a 'dishonest fantasy' perpetuated by the pro-nuclear lobby.¶ Thorium cannot in itself power a reactor; unlike natural uranium, it does not contain enough fissile material to initiate a nuclear chain reaction. As a result it must first be bombarded with neutrons to produce the highly radioactive isotope uranium-233 – 'so these are really U-233 reactors,' says Karamoskos.¶ This isotope is more hazardous than the U-235 used in conventional reactors, he adds, because it produces U-232 as a side effect (half life: 160,000 years), on top of familiar fission by-products such as technetium-99 (half life: up to 300,000 years) and iodine-129 (half life: 15.7 million years).Add in actinides such as protactinium-231 (half life: 33,000 years) and it soon becomes apparent that thorium's superficial cleanliness will still depend on digging some pretty deep holes to bury the highly radioactive waste.

#### Thorium use potential will be coopted as a way to justify continuing to pump money into uranium reactors and thorium reactors are not and won’t be commercially viable.

Eifion Rees for the Ecologist Guardian Environment Network 2011 Don't believe the spin on thorium being a greener nuclear option http://www.guardian.co.uk/environment/2011/jun/23/thorium-nuclear-uranium

In a world increasingly aware of and affected by global warming, the news that 2010 was a record year for greenhouse gases levels was something of a blow.¶ With the world's population due to hit nine billion by 2050, it highlights the increasingly urgent need to find a clean, reliable and renewable source of energy.¶ India hopes it has the answer: thorium, a naturally occurring radioactive element, four times more abundant than uranium in the earth's crust.¶ The pro-thorium lobby claim a single tonne of thorium burned in a molten salt reactor (MSR) – typically a liquid fluoride thorium reactor (LFTR) – which has liquid rather than solid fuel, can produce one gigawatt of energy. A traditional pressurised water reactor (PWR) would need to burn 250 tonnes of uranium to produce the same amount of energy.¶ They also produce less waste, have no weapons-grade by-products, can consume legacy plutonium stockpiles and are meltdown-proof – if the hype is to be believed.¶ India certainly has faith, with a burgeoning population, chronic electricity shortage, few friends on the global nuclear stage (it hasn't signed the nuclear non-proliferation treaty) and the world's largest reserves of thorium. 'Green' nuclear could help defuse opposition at home (the approval of two new traditional nuclear power reactors on its west coast led to fierce protests recently) and allow it to push ahead unhindered with its stated aim of generating 270GW of energy from nuclear by 2050.¶ China, Russia, France and the US are also pursuing the technology, while India's department of atomic energy and the UK's Engineering and Physical Sciences Research Council are jointly funding five UK research programmes into it.¶ There is a significant sticking point to the promotion of thorium as the 'great green hope' of clean energy production: it remains unproven on a commercial scale. While it has been around since the 1950s (and an experimental 10MW LFTR did run for five years during the 1960s at Oak Ridge National Laboratory in the US, though using uranium and plutonium as fuel) it is still a next generation nuclear technology – theoretical.¶ China did announce this year that it intended to develop a thorium MSR, but nuclear radiologist Peter Karamoskos, of the International Campaign to Abolish Nuclear Weapons (ICAN), says the world shouldn't hold its breath.¶ 'Without exception, [thorium reactors] have never been commercially viable, nor do any of the intended new designs even remotely seem to be viable. Like all nuclear power production they rely on extensive taxpayer subsidies; the only difference is that with thorium and other breeder reactors these are of an order of magnitude greater, which is why no government has ever continued their funding.'¶ China's development will persist until it experiences the ongoing major technical hurdles the rest of the nuclear club have discovered, he says.¶ Others see thorium as a smokescreen to perpetuate the status quo: the world's only operating thorium reactor – India's Kakrapar-1 – is actually a converted PWR, for example. 'This could be seen to excuse the continued use of PWRs until thorium is [widely] available,' points out Peter Rowberry of No Money for Nuclear (NM4N) and Communities Against Nuclear Expansion (CANE).¶ In his reading, thorium is merely a way of deflecting attention and criticism from the dangers of the uranium fuel cycle and excusing the pumping of more money into the industry.

#### Thorium fuel does not reduce the radiotoxicity of spent fuel/waste.

Arjun Makhijani and Michele Boyd Thorium Fuel: No Panacea for Nuclear Power 2009 http://ieer.org/wp/wp-content/uploads/2012/04/thorium2009factsheet.pdf

Proponents claim that thorium fuel significantly reduces the volume, weight, and long-term ¶ radiotoxicity of spent fuel. Using thorium in a nuclear reactor creates radioactive waste ¶ that proponents claim would only have to be isolated from the environment for 500 years, ¶ as opposed to the irradiated uranium-only fuel that remains dangerous for hundreds of ¶ thousands of years. This claim is wrong. The fission of thorium creates long-lived fission ¶ products like technetium-99 (half-life over 200,000 years). While the mix of fission ¶ products is somewhat different than with uranium fuel, the same range of fission products ¶ is created. With or without reprocessing, these fission products have to be disposed of in a ¶ geologic repository. ¶ If the spent fuel is not reprocessed, thorium-232 is very-long lived (half-life:14 billion ¶ years) and its decay products will build up over time in the spent fuel. This will make the ¶ spent fuel quite radiotoxic, in addition to all the fission products in it. It should also be ¶ noted that inhalation of a unit of radioactivity of thorium-232 or thorium-228 (which is ¶ also present as a decay product of thorium-232) produces a far higher dose, especially to ¶ certain organs, than the inhalation of uranium containing the same amount of radioactivity. ¶ For instance, the bone surface dose from breathing an amount (mass) of insoluble thorium ¶ is about 200 times that of breathing the same mass of uranium.

#### Thorium mining produces just as much front end waste as uranium mining

Arjun Makhijani and Michele Boyd Thorium Fuel: No Panacea for Nuclear Power 2009 http://ieer.org/wp/wp-content/uploads/2012/04/thorium2009factsheet.pdf

Finally, the use of thorium also creates waste at the front end of the fuel cycle. The ¶ radioactivity associated with these is expected to be considerably less than that associated ¶ with a comparable amount of uranium milling. However, mine wastes will pose long-term ¶ hazards, as in the case of uranium mining. There are also often hazardous non-radioactive ¶ metals in both thorium and uranium mill tailings.

#### Thorium mining is colonial, polluting and dangerous – just the same as uranium. Plan doesn’t solve.

Caldicott, Dec 12 2012 http://agreenroad.blogspot.com/2012/12/dr-calidocott-md-radioactive-thorium.html

There are problems with mining thorium, and the resulting radioactive pollution from tailing piles, just the same as with uranium, plutonium or any other radioactive mining operation. The result of mining radioactive materials is a large increase in cancers and other diseases, plus contaminated land, water and air for surrounding communities.

#### Blaming imperialism for all oppression masks more violent forms of oppression – prefer our evidence, its comparative

Fred **Halliday** (Middle East Report) **1999** “The Middle East at the Millennial Turn” http://www.merip.org/mer/mer213/213\_hallliday.html

Recent developments in the Middle East and the onset of new global trends and uncertainties pose a challenge not only to those who live in the region but also to those who engage it from outside. Here, too, previously-established patterns of thought and commitment are now open to question. The context of the l960s, in which journals such as MERIP Reports (the precursor of this publication) and the Journal of the North American Committee on Latin America (NACLA) were founded, was one of solidarity with the struggles of Third World peoples and opposition to external, imperialist intervention. That agenda remains valid: Gross inequalities of wealth, power and access to rights–a.k.a. imperialism–persist. This agenda has been enhanced by political and ethical developments in subsequent decades. Those who struggle include not only the national groups (Palestinians and Kurds) oppressed by chauvinist regimes and the workers and peasants (remember them?) whose labor sustains these states, but now also includes analyses of gender oppression, press and academic suppression and the denial of ecological security. The agenda has also elaborated a more explicit stress on individual rights in tandem with the defense of collective rights. History itself and the changing intellectual context of the West have, however, challenged this emancipatory agenda in some key respects. On the one hand, oppression, denial of rights and military intervention are not the prerogative of external states alone: An anti-imperialism that cannot recognize–and denounce–indigenous forms of dictatorship and aggression, or that seeks, with varying degrees of exaggeration, to blame all oppression and injustice on imperialism, is deficient. The Iranian Revolution, Ba‘thist Iraq, confessional militias in Lebanon, armed guerrilla groups in a range of countries, not to mention the Taliban in Afghanistan, often represent a much greater immediate threat to human rights and the principles in whose name solidarity was originally formulated than does Western imperialism. Islamist movements from below meet repressive states from above in their conduct. What many people in the region want is not less external involvement but a greater commitment by the outside world, official and non-governmental, to protecting and realizing rights that are universally proclaimed but seldom respected. At the same time, in a congruence between relativist renunciation from the region and critiques of "foundationalist" and Enlightenment thinking in the West, doubt has been cast on the very ethical foundation of solidarity: a belief in universal human rights and the possibility of a solidarity based on such rights. Critical engagement with the region is now often caught between a denunciation of the West's failure actively to pursue the democratic and human rights principles it proclaims and a rejection of the validity of these principles as well as the possibility of any external encouragement of them. This brings the argument back to the critique of Western policy, and of the relation of that critique to the policy process itself. On human rights and democratization, official Washington and its European friends continue to speak in euphemism and evasion. But the issue here is not to see all US involvement as inherently negative, let alone to denounce all international standards of rights as imperialist or ethnocentric, but rather, to hold the US and its European allies accountable to the universal principles they proclaim elsewhere. An anti-imperialism of disengagement serves only to reinforce the hold of authoritarian regimes and oppressive social practices within the Middle East.

#### No Impact - Western power and imperialism doesn’t foster violent interventions

Martin **Shaw** (Professor of International Relations and Politics at the University of Sussex) April **2001** “The Problem of the Quasi-Imperial State” http://www.sussex.ac.uk/Units/CGPE/Failed%20States/shaw.pdf

Furthermore, Western leaders have consistently sought to shore up failed and failing (semi-) authoritarian state structures, rather than supporting their break-ups. The West has supported central Russian power throughout all the vicissitudes of the Gorbachev, Yeltsin and Putin regimes. The West has maintained a 'constructive' relationship with Chinese Communism through Tiananmen Square and all subsequent phases of repression. The eastern advances of NATO and the European Union have responded largely to the demands of local elites and populations - as well as to the fear of further state breakdown in regions close to Western Europe. Even after the West had defeated the Saddam regime in the Gulf War, and even as the latter waged genocidal war on Shi'ites and Kurds, it was reluctant to countenance the break-up of the Iraqi state. Likewise, the West's early response to the Yugoslav crisis was to try to shore up a federal state that was ceasing to exist, condoning the early atrocities of the Yugoslav National Army; after several years of war, it still backed Milosevic's Serbia as a force for stability. Only long after it became clear that the latter was leading to new wars, in Kosovo and (threatened) in Montenegro, did Western leaders move reluctantly to confront Serbia. Thus it was not only in East Timor, where the historically pro-Western Indonesian regime was the oppressor, that the West supported the existing centre and was late in coming to the rescue of the victims of genocide. Generally, therefore, Western power generally supports the maintenance of state structures even where these are dominated by regimes that are anti-Western as well as repressive. More extreme cases of 'state collapse' have tended to occur in countries like Somalia, Liberia and Sierra Leone that have been of minimal or declining strategic and economic significance. In these cases, even more than in Iraq or Yugoslavia, Western elites have generally been extremely reluctant to intervene. The more credible charge against the West is not that it intervenes widely in support of its own interests, but that: it avoids intervention and tolerates even genocidal repression, where its own interests are not strongly engaged; its interventions are therefore consistently late in responding to state and human crises;Page 18 18 its interventions are often half-baked, appeasing local elites and failing to anticipate events; its national elites are unwilling to risk even small numbers of 'their' soldiers, even when the lives of large numbers of non-Western civilians are at risk; it is disinterested in the strong development of global institutions, preferring ad hoc structures that it can manipulate to genuine global democratic governance. In what sense, then, can contemporary Western power be said to represent an advance on historic European empires and Cold War American power? The above is hardly a positive appraisal. Indeed, the main positive advantages of Western power lie in its internal characteristics (internationalisation and democratisation) rather than in the development of a positive post- imperial relationship with the non-Western world. The principal challenges to empire, authoritarianism and repression come today from civil society and social movements, rather than from the Western state.

#### Anti-imperialist strategies distort struggles for real global justice – resorting in massive violence in the periphery of your anti-western struggle

Martin **Shaw** (Professor of International Relations and Politics at the University of Sussex) April **2001** “The Problem of the Quasi-Imperial State” http://www.sussex.ac.uk/Units/CGPE/Failed%20States/shaw.pdf

It is worth asking how the politics of anti-imperialism distorts Western leftists' responses to global struggles for justice. John Pilger, for example, consistently seeks to minimise the crimes of Milosevic in Kosovo, and to deny their genocidal character - purely because these crimes formed part of the rationale for Western intervention against Serbia. He never attempted to minimise the crimes of the pro-Western Suharto regime in the same way. The crimes of quasi-imperial regimes are similar in cases like Yugoslavia and Indonesia, but the West's attitudes towards them are undeniably uneven and inconsistent. To take as the criterion of one's politics opposition to Western policy, rather than the demands for justice of the victims of oppression as such, distorts our responses to the victims and our commitment to justice. We need to support the victims regardless of whether Western governments take up their cause or not; we need to judge Western power not according to a general assumption of 'new imperialism' but according to its actual role in relation to the victims.

### Solvency

#### LFTR’s can’t solve – long time from commercialization, technical hurdles, inefficient and eliminating fissile material.

Dan Meneley, 11-17-2011, Ph.D., Imperial College, University of London, England Reactor Physics specialty in the Department of Mechanical Engineering, International Nuclear Energy Academy Chairman, Currently Adjunct Professor, University of Ontario Institute of Technology, BraveNewClimate, “The IFR vs the LFTR: An Exchange of Emails,” <http://bravenewclimate.com/2011/11/17/ifr-lftr-exchange/>

We’ll see what others on this list have to say, but in my opinion, Carlsen’s enthusiasm for thorium is premature, to say the least. The ONLY significant advantage a thorium cycle would have over fast reactors with metallic fuel (IFR/PRISM) is its lower requirement for startup fissile. That advantage is offset by the fact that the thorium reactor is at a stage of development roughly equivalent to where the IFR was in 1975 — a promising idea with a lot of R&D needed to before it’s ready for a commercial demonstration — which puts its deployment about 20 years behind what could be the IFR’s schedule. The thorium community has not yet even agreed on what will be the optimum thorium technology to pursue. I think that thorium should indeed be investigated as a possible future competitor for the IFR. But what would be gained by putting off demonstrating the IFR/PRISM technology while waiting to see if thorium really lives up to its promise? Nothing would be lost by getting a fleet of IFRs up and running. They could be breeding fissile for decades while a possible thorium fleet gets up and running, and the IFR-bred fissile — several times more than was started with — could be used for expanding the hypothetical thorium fleet at the end of the IFRs’ lifetimes. If the current perceived urgency is to sequester plutonium to put it out of the reach of proliferators, that can be done much faster with early deployment of IFRs rather than by later deployment of thorium reactors — and each IFR will sequester 8 – 10 times as much plutonium (Pu) per GWe as a thorium reactor. On the matter of thorium, George and others have repeated a . . . realistic picture. [Boosting thorium] will do no good. This is another idealist’s dream, like large-scale wind energy. They only want to save the world and are not interested in practical details. If you’ve tried to do control, fuel cycle, and safety system design on a thorium reactor you’ll not be so enthusiastic. The flux shape is a strong function of the past flux shape — because of the protactinium. After you shut the thing down you must account for the later reactivity increase. And then there’s the detail of not having any fissile isotope to start up in the first place. If you’re using thoria fuel, how are you going to extract the U233 economically?

#### Thorium reactors are not technically feasible

Arjun Makhijani, n electrical and nuclear engineer who is President of the Institute for Energy and Environmental Research. Makhijani has written many books and reports analyzing the safety, economics, and efficiency of various energy sources. He has testified before Congress and has served as an expert witness in Nuclear Regulatory Commission proceedings, and Michele Boyd, former director of the Safe Energy Program at Physicians for Social Responsibility, “Thorium Fuel: No Panacea for Nuclear Power,” Physicians for Social Responsibility, July 2009, <http://ieer.org/wp/wp-content/uploads/2012/04/thorium2009factsheet.pdf>, accessed 10-1-2012.

Thorium “fuel” has been proposed as an alternative to uranium fuel in nuclear reactors. ¶ There are not “thorium reactors,” but rather proposals to use thorium as a “fuel” in ¶ different types of reactors, including existing light-water reactors and various fast breeder ¶ reactor designs.¶ Thorium, which refers to thorium-232, is a radioactive metal that is about three times more ¶ abundant than uranium in the natural environment. Large known deposits are in Australia, ¶ India, and Norway. Some of the largest reserves are found in Idaho in the U.S. The primary ¶ U.S. company advocating for thorium fuel is Thorium Power (www.thoriumpower.com). ¶ Contrary to the claims made or implied by thorium proponents, however, thorium doesn’t ¶ solve the proliferation, waste, safety, or cost problems of nuclear power, and it still faces ¶ major technical hurdles for commercialization.

#### Thorium has consistently failed due to technical problems

Arjun Makhijani, n electrical and nuclear engineer who is President of the Institute for Energy and Environmental Research. Makhijani has written many books and reports analyzing the safety, economics, and efficiency of various energy sources. He has testified before Congress and has served as an expert witness in Nuclear Regulatory Commission proceedings, and Michele Boyd, former director of the Safe Energy Program at Physicians for Social Responsibility, “Thorium Fuel: No Panacea for Nuclear Power,” Physicians for Social Responsibility, July 2009, <http://ieer.org/wp/wp-content/uploads/2012/04/thorium2009factsheet.pdf>, accessed 10-1-2012.

Research and development of thorium fuel has been undertaken in Germany, India, Japan, ¶ Russia, the UK, and the U.S. for more than half a century. Besides remote fuel fabrication¶ and issues at the front end of the fuel cycle, thorium-U-233 breeder reactors produce fuel ¶ (“breed”) much more slowly than uranium-plutonium-239 breeders. This leads to ¶ technical complications. India is sometimes cited as the country that has successfully ¶ developed thorium fuel. In fact, India has been trying to develop a thorium breeder fuel ¶ cycle for decades but has not yet done so commercially. ¶ One reason reprocessing thorium fuel cycles haven’t been successful is that uranium-232 ¶ (U-232) is created along with uranium-233. U-232, which has a half-life of about 70 years, ¶ is extremely radioactive and is therefore very dangerous in small quantities: a single small ¶ particle in a lung would exceed legal radiation standards for the general public. U-232 also ¶ has highly radioactive decay products. Therefore, fabricating fuel with U-233 is very ¶ expensive and difficult.

#### Thorium reactors have no design plan in R&D for commercialization – no electricity produced, granular cracking, and moderator distortion means it’s unsafe.

Dylan Ryan, 2011, Masters in Mechanical Engineering, specialization in technical aided engineering & materials, and a PhD in engineering energy systems from Stanford University, 15 years’ experience in natural convection and heat transfer, daryanenergyblog , “The Molten Salt Reactor concept,” <http://daryanenergyblog.wordpress.com/ca/part-8-msr-lftr/>

Firstly, there is a view that the LFTR concept has been “proven” already via the Molten-Salt Reactor Experiment (MSRE) project in the 1960’s. While it is certainly true that such a reactor ran successfully for 4 years and that this project proved that some of the ideas behind the MSR have merit, there are a couple of key things it didn’t do. Notably, it never generated a single watt of electricity. As I’ve mentioned previously the turbo generator systems for high temperature reactors is technically challenging, especially for the LFTR as the molten salt presents a number of design challenges. That said, the goal of the MSR experiment was to prove the reactor concept, not develop turbo machinery kit, which would have been a serious (and costly) distraction. The molten salts at the MSRE were passed through a cooling loop and fans used to blow the pipe work cool again. Stories of said pipe work glowing red (see below) are worrying, as it indicates they were operating well within the thermal creep zone. At the time very little was known about thermal creep, in particular the delirious effects of neutron bombardment on exacerbating the problem. Consequently, it’s unlikely one could utilize the same design spec today for a commercial plant. Indeed, reports of distortions in the graphite moderator after just a few years exposure and worse inter-granular cracking (a corrosion related failure phenomenon usually caused by excessively high temperatures) of some metal components exposed to the molten salt, suggest it was operating well outside the limits of what would count as a reasonable safe technical envelope (at least for a commercial reactor with a long operating life). As I will detail later this has significant design implications. The reactor also spent a good deal of its time down for maintenance. The cooling circuit of the MSRE glows red hot due to its high operating temperature Also, the MSRE never included the trickier Chemical Processing Plant. One was designed by ORNL but never installed. Aside from using a chemical spray technique to separate out the nastier neutron “poisons”, such as Xenon-135, much of the remaining “chemical plant” functions of this reactor design have never been tested. While the MSRE did run once on U-233, this was generated off site, not by the reactor itself. Finally, as I hinted earlier, 40 years is a long time. Very little of the technical side of building this reactor would be relevant today given how much technology, especially material science has changed. Many of the scientists who worked on it are either dead or retired. While one won’t be starting off with a blank sheet of paper, you probably won’t find yourself far removed from that.

#### Extra steps in thorium make it cost-prohibitive

Arjun Makhijani, n electrical and nuclear engineer who is President of the Institute for Energy and Environmental Research. Makhijani has written many books and reports analyzing the safety, economics, and efficiency of various energy sources. He has testified before Congress and has served as an expert witness in Nuclear Regulatory Commission proceedings, and Michele Boyd, former director of the Safe Energy Program at Physicians for Social Responsibility, “Thorium Fuel: No Panacea for Nuclear Power,” Physicians for Social Responsibility, July 2009, <http://ieer.org/wp/wp-content/uploads/2012/04/thorium2009factsheet.pdf>, accessed 10-1-2012.

Thorium may be abundant and possess certain technical advantages, but it does not mean ¶ that it is economical. Compared to uranium, the thorium fuel cycle is likely to be even more ¶ costly. In a once-through mode, it will need both uranium enrichment (or plutonium ¶ separation) and thorium target rod production. In a breeder configuration, it will need ¶ reprocessing, which is costly. In addition, as noted, inhalation of thorium-232 produces a ¶ higher dose than the same amount of uranium-238 (either by radioactivity or by weight). ¶ Reprocessed thorium creates even more risks due to the highly radioactive U-232 created ¶ in the reactor. This makes worker protection more difficult and expensive for a given level ¶ of annual dose.

## 2NC

#### 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.

#### Anell defines ‘restriction on production’—they don’t—key to predictability

**Haneman**, justice – Superior Court of New Jersey, Appellate Division, 12/4/**’59**

(J.A.D., “RUSSELL S. BERTRAND, ET AL., PLAINTIFFS-RESPONDENTS, v. DONALD T. JONES, ET AL., DEFENDANTS-APPELLANTS,” 58 N.J. Super. 273; 156 A.2d 161; 1959 N.J. Super. LEXIS 569)

HN4 In ascertaining the meaning of the word "restrictions" as here employed, it must be considered in context with the entire clause in which it appears. It is to be noted that the exception concerns restrictions "which have been complied with." Plainly, this connotes a representation of compliance by the vendor with any restrictions upon the permitted uses of the subject property. The conclusion that "restrictions" refer solely to a limitation of the manner in which the vendor may [\*\*\*14] use his own lands is strengthened by the further provision found in said clause that the conveyance is "subject to the effect, [\*\*167] if any, of municipal zoning laws." Municipal zoning laws affect the use of property.

HN5 A familiar maxim to aid in the construction of contracts is noscitur a sociis. Simply stated, this means that a word **is known from its associates**. Words of general and specific import take color from each other when associated together, and thus the word of general significance is modified by its associates of restricted sense. 3 Corbin on Contracts, § 552, p. 110; cf. Ford Motor Co. v. New Jersey Department of Labor and Industry, 5 N.J. 494 (1950). The [\*284] word "restrictions," therefore, should be construed as being used in the same limited fashion as "zoning."

#### Including regulations is a limits disaster

Doub 76

Energy Regulation: A Quagmire for Energy Policy

Annual Review of Energy

Vol. 1: 715-725 (Volume publication date November 1976)

DOI: 10.1146/annurev.eg.01.110176.003435LeBoeuf, Lamb, Leiby & MacRae, 1757 N Street NW, Washington, DC 20036

http://0-www.annualreviews.org.library.lausys.georgetown.edu/doi/pdf/10.1146/annurev.eg.01.110176.003435

Mr. Doub is a principal in the law firm of Doub and Muntzing, which he formed in 1977. Previously he was a partner in the law firm of LeBoeuf, Lamb, Leiby and MacRae. He was a member of the U.S. Atomic Energy Commission in 1971 - 1974. He served as a member of the Executive Advisory Committee to the Federal Power Commission in 1968 - 1971 and was appointed by the President of the United States to the President's Air Quality Advisory Board in 1970. He is a member of the American Bar Association, Maryland State Bar Association, and Federal Bar Association. He is immediate past Chairman of the U.S. National Committee of the World Energy Conference and a member of the Atomic Industrial Forum. He currently serves as a member of the nuclear export policy committees of both the Atomic Industrial Forum and the American Nuclear Energy Council. Mr. Doub graduated from Washington and Jefferson College (B.A., 1953) and the University of Maryland School of Law in 1956. He is married, has two children, and resides in Potomac, Md. He was born September 3, 1931, in Cumberland, Md.

FERS began with the recognition that federal energy policy must result from concerted efforts in all areas dealing with energy, not the least of which was the manner in which energy is regulated by the federal government. Energy selfsufficiency is improbable, if not impossible, without sensible regulatory processes, and effective regulation is necessary for public confidence. Thus, the President directed that "a comprehensive study be undertaken, in full consultation with Congress, to determine the best way to organize all energy-related regulatory activities of the government." An interagency task force was formed to study this question. With 19 different federal departments and agencies contributing, the task force spent seven months deciphering the present organizational makeup of the federal energy regulatory system, studying the need for organizational improvement, and evaluating alternatives. More than 40 agencies were found to be involved with making regulatory decisions on energy. Although only a few deal exclusively with energy, most of the 40 could significantly affect the availability and/or cost of energy. For example, in the field of gas transmission, there are five federal agencies that must act on siting and land-use issues, seven on emission and effluent issues, five on public safety issues, and one on worker health and safety issues-all before an onshore gas pipeline can be built. The complexity of energy regulation is also illustrated by the case of Standard Oil Company (Indiana), which reportedly must file about 1000 reports a year with 35 different federal agencies. Unfortunately, this example is the rule rather than the exception.

### 2NC Limits Overview

#### Their interpretation is a limits disaster- anything can be a financial incentive- the number of ways to give a grant or loan is explosionary- the only limit the resolution gives us for financial incentives is the modifier ‘for energy production’

#### Limits outweigh –

#### A. Most logical—the significance of one-of-many issues is minimal. Constraints inherently increase meaning.

#### B. It’s a precursor—education is inevitable, unfocused education isn’t productive. Limits determine the direction and productivity of learning.

#### Small schools- Huge topic with constantly developing literature magnifies resource disparities- Big programs can have a new aff every other round- No topic generics sufficient to restore balance

#### Key to fairness- essential to ensure that debates at the end of the year have meaningful clash over the mechanism

#### Literally doubles the educational benefit

**Arrington 2009** (Rebecca, UVA Today, “Study Finds That Students Benefit From Depth, Rather Than Breadth, in High School Science Courses” March 4)

A recent study reports that high school students who study fewer science topics, but study them in greater depth, have an advantage in college science classes over their peers who study more topics and spend less time on each. Robert Tai, associate professor at the University of Virginia's Curry School of Education, worked with Marc S. Schwartz of the University of Texas at Arlington and Philip M. Sadler and Gerhard Sonnert of the Harvard-Smithsonian Center for Astrophysics to conduct the study and produce the report. "Depth Versus Breadth: How Content Coverage in High School Courses Relates to Later Success in College Science Coursework" relates the amount of content covered on a particular topic in high school classes with students' performance in college-level science classes. The study will appear in the July 2009 print edition of Science Education and is currently available as an online pre-print from the journal. "As a former high school teacher, I always worried about whether it was better to teach less in greater depth or more with no real depth. This study offers evidence that teaching fewer topics in greater depth is a better way to prepare students for success in college science," Tai said. "These results are based on the performance of thousands of college science students from across the United States." The 8,310 students in the study were enrolled in introductory biology, chemistry or physics in randomly selected four-year colleges and universities. Those who spent one month or more studying one major topic in-depth in high school earned higher grades in college science than their peers who studied more topics in the same period of time. The study revealed that students in courses that focused on mastering a particular topic were impacted twice as much as those in courses that touched on every major topic

#### Turns their offense—limits are vital to creativity and innovation

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.

## Warming

### Commercialization

#### Thorium doesn’t solve – multiple hurdles for commercialization and an increase in the risk of proliferation.

Arjun Makhijani & Michele Boyd, 2009, President of IEER, holds a Ph.D. in engineering (specialization: nuclear fusion) from the University of California at Berkeley. He has produced many studies and articles on nuclear fuel cycle related issues, including weapons production, testing, and nuclear waste, over the past twenty years, Michele Boyd is the former director of the Safe Energy Program at Physicians for Social Responsibility, was the legislative director of Public Citizen’s Energy Program where she advocated for sound federal energy legislation and led the coalition to terminate the federal reprocessing program (GNEP), Global Outreach Coordinator and Staff Scientist at the Institute for Energy and Environmental Research (IEER), master’s degree in environmental policy from the University of Michigan, Physicians for Social Responsibility, “Thorium Fuel: No Panacea for Nuclear Power,” <http://ieer.org/wp/wp-content/uploads/2012/04/thorium2009factsheet.pdf>

### Thorium “fuel” has been proposed as an alternative to uranium fuel in nuclear reactors. There are not “thorium reactors,” but rather proposals to use thorium as a “fuel” in different types of reactors, including existing light-water reactors and various fast breeder reactor designs. Thorium, which refers to thorium-232, is a radioactive metal that is about three times more abundant than uranium in the natural environment. Large known deposits are in Australia, India, and Norway. Some of the largest reserves are found in Idaho in the U.S. The primary U.S. company advocating for thorium fuel is Thorium Power (www.thoriumpower.com). Contrary to the claims made or implied by thorium proponents, however, thorium doesn’t solve the proliferation, waste, safety, or cost problems of nuclear power, and it still faces major technical hurdles for commercialization. Not a Proliferation Solution Thorium is not actually a “fuel” because it is not fissile and therefore cannot be used to start or sustain a nuclear chain reaction. A fissile material, such as uranium-235 (U-235) or plutonium-239 (which is made in reactors from uranium-238), is required to kick-start the reaction. The enriched uranium fuel or plutonium fuel also maintains the chain reaction until enough of the thorium target material has been converted into fissile uranium-233 (U-233) to take over much or most of the job. An advantage of thorium is that it absorbs slow neutrons relatively efficiently (compared to uranium-238) to produce fissile uranium-233. The use of enriched uranium or plutonium in thorium fuel has proliferation implications. Although U-235 is found in nature, it is only 0.7 percent of natural uranium, so the proportion of U-235 must be industrially increased to make “enriched uranium” for use in reactors. Highly enriched uranium and separated plutonium are nuclear weapons materials. In addition, U-233 is as effective as plutonium-239 for making nuclear bombs. In most proposed thorium fuel cycles, reprocessing is required to separate out the U-233 for use in fresh fuel. This means that, like uranium fuel with reprocessing, bomb-making material is separated out, making it vulnerable to theft or diversion. Some proposed thorium fuel cycles even require 20% enriched uranium in order to get the chain reaction started in existing reactors using thorium fuel. It takes 90% enrichment to make weapons-usable 2 uranium, but very little additional work is needed to move from 20% enrichment to 90% enrichment. Most of the separative work is needed to go from natural uranium, which has 0.7% uranium-235, to 20% U-235.

#### Very long timeframe even with optimal market conditions – an increase in incentives for thorium still won’t get fuel vendors on board.

UK NNL (National Nuclear Laboratory), August 2010, “The Thorium Fuel Cycle,” <http://ripassetseu.s3.amazonaws.com/www.nnl.co.uk/_files/documents/aug_11/NNL__1314092891_Thorium_Cycle_Position_Paper.pdf>

### ThorEnergy advocates using plutonium as the initial “seed” material (the fissile material used to generate the neutrons to enable breeding to take place in the fertile thorium) for LWRs, prior to U-233 becoming available at a later stage. The plutonium would be incorporated in Th-Pu MOX fuel. They argue that Th-Pu MOX is fundamentally very similar to U-Pu MOX fuel and therefore that the R&D requirements would be much less onerous than would be necessary for a more radical design change. Nevertheless, ThorEnergy recognize that the large R&D investment will still be required and the timescale to commercial readiness will be long. There have been many other international thorium fuel studies, including several demonstration programs in the Shipping port prototype Pressurized Water Reactor (PWR) and High Temperature Reactors (HTRs). However, these were not subsequently progressed to full commercial deployment. The main reason has been that thorium is competing with the uranium/plutonium fuel cycle which is already very mature. To progress to commercial deployment would demand major investments from fuel vendors and utilities. Such investment has yet to be justified by market conditions and there is no immediate prospect of change in the next ten years. Beyond that, however, the conditions may favor thorium if uranium ore prices increase and/or uranium reserves become more scarce. In the event of thorium fuel cycles being adopted commercially in existing LWRs, the technology can be considered to be well understood, but not fully demonstrated. The historic experience in the Shipping port PWR cannot now be considered adequate to cover modern operating regimes and discharge burnups. Demonstration of thorium/U-233 fuels in commercial LWRs will therefore demand small scale testing in research reactors, followed by large scale tests in commercial reactors. Based on NNL’s knowledge and experience of introducing new fuels into modern reactors, it is estimated that this is likely to take 10 to 15 years even with a concerted R&D effort and investment before the thorium fuel cycle could be established in current reactors and much longer for any future reactor systems. Therefore it is not envisaged that thorium fuel in LWRs will be established in the next decade, but could be feasible in the following ten years if the market conditions are conducive.

#### Thorium supporters are conspiratorial and 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?

#### 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.

#### 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.

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.

#### Tech isn’t ready

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)

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

## 1NR

### Impact

#### Skilled worker shortage tanks solvency – only increased skilled immigration solves

COC 9 (COMPETE – Council on Competitiveness, “Mobilizing a World-Class Energy Workforce,” Dec., <http://www.compete.org/images/uploads/File/PDF%20Files/CoC_-_Pillar_6_Handout_-_Mobilizing_a_World-Class_Energy_Workforce,_Dec09.pdf> )

America currently lacks an energy workforce of sufficient size and capabilities to meet the needs¶ of a sustainable, secure energy system.1 With increasing demand come abundant job¶ opportunities in both traditional and emerging energy industries. Unfortunately, U.S. workers are¶ neither aware nor sufficiently prepared to take them. Moreover, with an aging population and the¶ retirement of the baby boomers well under way, there is an inadequate pipeline of replacement¶ workers, technicians and managers to succeed them.¶ Bridge the Skills Gap and Build the Talent¶ The Council Recommends that:¶ • The U.S. Government offer full scholarships to U.S. graduates who commit to a minimum period of¶ service in an energy-related career in the governmental, academic or non-profit sectors.¶ • Congress establish a CompetePass program that will allow eligible participants to redeem the¶ passes at U.S. Department of Labor (DOL) one-stop training centers.¶ • The U.S. Government grant green cards to foreign students receiving undergraduate and advanced¶ degrees in scientific and engineering disciplines from U.S. institutions.¶ The United States stands to lose half of its electric power industry workforce within the next five to ten¶ years due to retirement. America’s oil and gas workforce averages 50 years in age; half are likely to retire¶ soon. Workers in these conventional energy sector jobs, from power plant operators to transmission line¶ and pipeline workers, are retiring at a much faster rate than they are being replaced. The introduction of¶ any new energy technologies will not compensate for this workforce shortage. For example, in the nuclear¶ industry, the fact that there has been no new construction of a nuclear facility in the United States in over¶ 30 years has led to the atrophy of skills, the loss of technicians, the dearth of American students in¶ nuclear engineering and a national security risk for the primarily nuclear-powered U.S. Navy. 2¶¶ The development, installation and¶ maintenance of new technologies¶ require skills at all levels of educational¶ training. Many of these jobs, such as¶ building new power plants, cannot be¶ exported and will remain in the United¶ States. So-called “green collar” jobs¶ could fill this gap over time and provide¶ for significant domestic employment¶ growth, but capitalizing on this¶ opportunity will require government¶ being proactive in developing programs¶ to provide the necessary skills.¶ Government should provide a 21st¶ century education to match the 21st¶ century job opportunities, requirements¶ and needs.¶ There is growing global competition for¶ scientific and engineering talent today,¶ and the U.S. pipeline of students is¶ slowing.3 The private sector, where the overwhelming majority of careers will be, knows best the current¶ opportunities that are not being met. Executives cite the lack of scientific, engineering and skilled talent as¶ among the most serious challenges facing their businesses today.4 They know what skills will be required¶ and can assist in developing the workforce of the future by working closely with educational institutions as¶ well as within their own organizations.

### A2 Framework = No Link

#### Vital to decisionmaking

Saideman 11 Steve Saideman, Associate Professor, Political Science, McGill University, “Key Constraint of Policy Relevance,” 7—25—11, <http://duckofminerva.blogspot.com/2011/07/key-constraint-on-policy-relevance.html>, accessed 10-2-11

\Dan Drezner has a great post today about how the foreign policy smart set (his phrase) gets so frustrated by domestic politics that they tend to recommend domestic political changes that are never going to happen. I would go one step further and suggest that one of the key problems for scholars who want to be relevant for policy debates is that we tend to make recommendations that are "incentive incompatible." I love that phrase. What is best for policy may not be what is best for politics, and so we may think we have a good idea about what to recommend but get frustrated when our ideas do not get that far. Lots of folks talking about early warning about genocide, intervention into civil wars and the like blame "political will." That countries lack, for whatever reason, the compulsion to act. Well, that is another way of saying that domestic politics matters, but we don't want to think about it. Dan's piece contains an implication which is often false--that IR folks have little grasp of domestic politics. Many IR folks do tend to ignore or simplify the domestic side too much, but there is plenty of scholarship on the domestic determinants of foreign policy/grand strategy/war/trade/etc. Plenty of folks look at how domestic institutions and dynamics can cause countries to engage in sub-optimal foreign policies (hence the tradeoff implied in my second book--For Kin or Country). The challenge, then, is to figure out what would be a cool policy and how that cool policy could resonate with those who are relevant domestically. That is not easy, but it is what is necessary. To be policy relevant requires both parts--articulating a policy alternative that would improve things and some thought about how the alternative could be politically appealing. Otherwise, we can just dream about the right policy and gnash our teeth when it never happens.

### PC Key

#### Obama PC will get an immigration bill passed- opposition are just haters

Fox News 2-4-2013 “Obama, Labor and Business Leaders to Meet on Immigration Reform” http://latino.foxnews.com/latino/news/2013/02/04/obama-labor-and-business-leaders-to-meet-and-talk-about-immigration-reports/

President Barack Obama is moving forward in his attempt to tackle immigration reform just days after he announced his plans on the issue.¶ Obama on Tuesday is meeting with labor and business leaders at the White House to "discuss his commitment to getting a bipartisan bill passed in 2013, and how immigration reform fits within his broader agenda for economic growth and competitiveness," read a White House statement.¶ The meeting comes as a group of about six House members, equally divided between Democrats and Republicans, is nearing completion of wide-ranging immigration legislation. The legislation, similar to proposals by the Senate and Obama, include a pathway to legalization for undocumented residents in the country. The House intends to unveil the legislation at around the time of Obama's State of the Union address Feb. 12, according to lawmakers and aides involved.¶ The proposal is likely to face strong resistance from many of the conservative Republicans who dominate the House.¶ But group members and others say that, despite the discomfort of many House Republicans with any effort to adjust the status of undocumented immigrants', they see glimmers of hope for passage of some kind of immigration package during this session of Congress.¶ "I've felt a huge sea change, believe it or not, from both parties," said Rep. Mario Diaz-Balart, R-Fla., a member of the group. ¶ "There are some who will criticize anything no matter what it is as amnesty. There are even some who will label anything as amnesty without even reading a bill or seeing a bill. It's their right to do so. But I think the majority of Republicans and the majority of Democrats want to get something done, want to fix it."

#### Immigration reform will pass but it will be close- Obama PC is key- Congressional PC is insufficient

Hunt 2-5 [Albert R. Hunt is a Bloomberg View columnist 2-5-2013 Miami Herald “Will immigration reform go the distance?” http://www.miamiherald.com/2013/02/05/3218867\_p2/will-immigration-reform-go-the.html]

Immigration reform is having a “Kumbaya” moment, with support from the White House, a bipartisan contingent in Congress, business and labor.¶ The Republicans are petrified after their dismal showing among the fastest-growing slices of the electorate, Hispanics and Asians; President Barack Obama wants to reward the loyalty of those voters. Business and labor, as well as many politicians, want to fix a dysfunctional system. There are more than 11 million undocumented immigrants, 5 percent of the work force. Many of these people live in fear of discovery, while jobs go unfilled in some areas.¶ Hold the champagne. When it comes to immigration laws, the concept is always easier than the reality. Change failed to happen six years ago, even with a push from a high-powered coalition led by President George W. Bush and Senators John McCain and Edward M. Kennedy.¶ The dynamics are more favorable today. Still, the same obstacles persist; the powerful countervailing considerations include:¶ • A Pathway to Where? There’s a fairly broad consensus for ending the illegal status of the undocumented. The White House, Hispanic groups and most Senate supporters insist that any reform must lead to a pathway to citizenship.¶ That approach faces great resistance. Some lawmakers demand that any move toward citizenship must come second to solving the border-security problem, at a minimum. For some, this is a political cover; under the Obama administration, resources for border security have been increased sharply, including the use of drones. And deportations of undocumented immigrants are at a record high.¶ A border-security trigger is realistic if it includes quantifiable goals, such as the number of new Border Patrol agents, the amount of resources allocated and the new technologies utilized. It isn’t reasonable if it requires meeting an amorphous standard such as “operational control” of a border that is always changing.¶ Hispanic groups assert that the real motive for such demands is to unreasonably stretch out any possibility of granting citizenship.¶ “There would be a backlash if citizenship is delayed for 15 or 20 years,” warns Gary Segura, a Stanford University professor and co-founder of Latino Decisions, a research organization on Hispanic public opinion.¶ • A Fragile Coalition: Equally contentious is the question of future flows of immigrants. One proposal would link the number of legal immigrants to economic conditions: more would be let in when times are good, fewer in tougher times. That sounds easier than it is. There will be clashes over how great a priority should be given to those with high-tech skills or to agricultural workers or to family reunification. Small businesses will rebel against any costly verification plan.¶ Most independent studies show that immigration is a decided economic plus, bringing in revenue and increasing productivity and innovation.¶ Yet the arguments of the populist right may resonate more as the debate heats up. NumbersUSA, a leading anti-immigration group, is reviving charges that immigration reform would drive down wages for middle- and low-income workers. Kris Kobach, the Kansas secretary of state who authored anti-immigration measures in several states and the Republican Party’s platform position on the issue last summer, charges taxpayers would be hit with $2.6 trillion in added food stamp, Medicare and Medicaid and welfare costs. That estimate is refuted by reliable studies; it still cuts.¶ • The Ghost of Dennis Hastert: The former Republican speaker of the House decreed that any bill must command majority support among majority party members. Last month, House Speaker John Boehner, Ohio, waived the rule twice: To pass a measure avoiding the automatic spending cuts and tax increases known as the fiscal cliff and then for aid to victims of Hurricane Sandy.¶ Boehner, along with most party leaders, understands his party’s serious difficulties with Hispanic voters and fears making matters worse by blocking an overhaul. Two of the most virulent anti-immigration Republicans in the House, Lamar Smith of Texas and Steve King of Iowa, no longer hold important committee chairmanships.¶ Yet with anti-immigration sentiment still running high among many Republican rank-and-file voters, it’s tough to imagine a majority of the party’s House members backing a comprehensive bill, even if, as is certain, the Senate goes first. Boehner’s only option might be to let a bill pass primarily with Democratic votes.¶ To do that, he would need the support of House Majority Leader Eric Cantor and the whip, Kevin McCarthy; there’s no shrewder politician than McCarthy, who is always attuned to the party’s base. He’s also from California where, after Gov. Pete Wilson played the anti-immigration card in 1994, the Democrats completely dominate politics.¶ • Who is the Ted Kennedy or Rahm Emanuel? The successful, if flawed, passage of Obama’s health-care measure probably wouldn’t have been possible without the savvy hand of former White House Chief of Staff Emanuel. Congressional Democrats and some outside advocates see no Emanuel counterpart in the current White House; privately, some say they would like the White House to enlist a special envoy — perhaps former Housing Secretary and San Antonio Mayor Henry Cisneros or former Senate Majority Leader Tom Daschle — to shepherd the legislation.¶ There was no more capable legislator or deal-maker than the late Senator Kennedy. Egos and tensions already are surfacing among supporters of reform; Republicans don’t trust the White House, and some Democrats worry that Marco Rubio, the ambitious young Republican senator from Florida, will look for a reason to peel off as he comes under pressure from his party’s right wing. There is no senator today who possesses Kennedy’s skill for navigating these shoals.¶ It’s still a slightly better bet that a big immigration bill will be enacted in this Congress. Getting there will be ugly, and the measure will seem to die more than once as it battles these cross pressures.¶

#### Obama PC ensures passage

Krudy 1-29 [Edward Krudy 1-29-2013 Rueters “Analysis: Immigration reform could boost U.S. economic growth” http://www.reuters.com/article/2013/01/29/us-usa-economyimmigration-idUSBRE90S06R20130129]

President Barack Obama plans to launch his second-term push for a U.S. immigration overhaul during a visit to Nevada on Tuesday and will make it a high priority to win congressional approval of a reform package this year, the White House said.¶ The chances of major reforms gained momentum on Monday when a bipartisan group of senators agreed on a framework that could eventually give 11 million illegal immigrants a chance to become American citizens.

### Link

### UTIL

#### This moral tunnel vision is complicit with the evil they criticize

Jeffrey Issac (professor of political science at Indiana University) 2002 Dissent, Spring, ebsco

As writers such as Niccolo Machiavelli, Max Weber, Reinhold Niebuhr, and Hannah Arendt have taught, an unyielding concern with moral goodness undercuts political responsibility. The concern may be morally laudable, reflecting a kind of personal integrity, but it suffers from three fatal flaws: (1) It fails to see that the purity of one’s intention does not ensure the achievement of what one intends. Abjuring violence or refusing to make common cause with morally compromised parties may seem like the right thing; but if such tactics entail impotence, then it is hard to view them as serving any moral good beyond the clean conscience of their supporters; (2) it fails to see that in a world of real violence and injustice, moral purity is not simply a form of powerlessness; it is often a form of complicity in injustice. This is why, from the standpoint of politics—as opposed to religion—pacifism is always a potentially immoral stand. In categorically repudiating violence, it refuses in principle to oppose certain violent injustices with any effect; and (3) it fails to see that politics is as much about unintended consequences as it is about intentions; it is the effects of action, rather than the motives of action, that is most significant. Just as the alignment with “good” may engender impotence, it is often the pursuit of “good” that generates evil. This is the lesson of communism in the twentieth century: it is not enough that one’s goals be sincere or idealistic; it is equally important, always, to ask about the effects of pursuing these goals and to judge these effects in pragmatic and historically contextualized ways. Moral absolutism inhibits this judgment. It alienates those who are not true believers. It promotes arrogance. And it undermines political effectiveness.

### 2NC Thorium vs Uranium

#### Framing argument-

#### Thorium represents little reduction in uranium output or waste – too small to warrant a change, and is no more proliferation resistant

Cara L. DiIorio, David J. Knight and Matthew P. Mancuso ADOPTION OF THORIUM POWER March 2 2012 https://www.wpi.edu/Pubs/E-project/Available/E-project-022912-160730/unrestricted/IQP-BJS-TP11.pdf

Furthermore, the NNL points out that the thorium fuel cycle is only sustainable if ¶ thorium waste is reprocessed at a remote plant and that this reprocessing “present\*s+ very ¶ large technological, commercial and risk barriers, each with a significant cost component.” ¶ Even if the waste is not reprocessed, the thorium fuel cycle is only marginally beneficial over ¶ the uranium cycle. As an example, the NNL states that the seed-blanket design only represents ¶ a 10% reduction in uranium input [Hesketh 2010]. ¶ Since uranium is still required for the fuel cycle, there will always be a significant ¶ amount of plutonium produced, even if that amount is reduced. The NNL feels that the ¶ proliferation-proof nature of the thorium cycle is “over-stated,” and that “thorium systems are ¶ no more proliferation resistant than U-Pu systems though they may offer limited benefits in ¶ some circumstances” [Hesketh 2010]. Reduction in the radio-toxicity of waste for the thorium ¶ cycle is also thought by the lab to be too small to warrant a change, unless the waste is ¶ recycled. In this case, the reduction in radio-toxicity would be significant [Hesketh 2010].

#### Manufacture of thorium and uranium fuels are similarly harmful and thorium manufacture is not feasible.

Cara L. DiIorio, David J. Knight and Matthew P. Mancuso ADOPTION OF THORIUM POWER March 2 2012 https://www.wpi.edu/Pubs/E-project/Available/E-project-022912-160730/unrestricted/IQP-BJS-TP11.pdf

Speaking generally, the manufacturing of thorium-based nuclear fuels is similar to ¶ making uranium-based fuels. However, some thorium-based fuels contain uranium-233, which ¶ requires high-intensity shielding and remote or automated handling because of gamma ¶ emissions. Moreover, manufacturing fuel containing this harmful uranium isotope is often not ¶ feasible [Majumdar 1998] or cost-effective [Lung 1998]. In addition, any fabrication process ¶ that involves the production of fine radioactive dust or powder requires automation. The ¶ production area also needs to be well-ventilated and hermetically sealed [International Atomic ¶ Energy Agency 2005]. However, the operator may be in contact with the fuel material if it ¶ contains only naturally occurring U-235 and/or Th-232, which both emit low-level alpha ¶ radiation and are not overtly harmful if the operator is well-protected [International Atomic ¶ Energy Agency 2005].

#### REES = IT’S COOPTED- ALSO PROVES THE POLITICS LINK

### 2NC Mining/Processing Bad

#### Brazil thorium site proves

Cara L. DiIorio, David J. Knight and Matthew P. Mancuso ADOPTION OF THORIUM POWER March 2 2012 https://www.wpi.edu/Pubs/E-project/Available/E-project-022912-160730/unrestricted/IQP-BJS-TP11.pdf

If handled improperly, thorium waste can be a dangerous and costly burden on the ¶ public. For example, Brazil had a large rare earth mining and processing industry from 1949 to ¶ 1992. The waste obtained from monazite extraction, which included thorium and uranium ¶ hydroxides, was stored improperly and without regard for public safety because the nation had ¶ poor regulatory laws. This led to contamination of soil, groundwater, and the atmosphere and ¶ raised serious environmental and health concerns. In fact, two processing sites in Sao Paulo ¶ had to be decommissioned, which was an extremely expensive process. The site remediation ¶ also increased public fears about the dangers of radiation, necessitating the development of a ¶ new monazite processing method that produces less radioactive waste [da Costa 2005].

#### Mining of thorium produces a large amount of waste and is not cost efficient or safe.

Cara L. DiIorio, David J. Knight and Matthew P. Mancuso ADOPTION OF THORIUM POWER March 2 2012 https://www.wpi.edu/Pubs/E-project/Available/E-project-022912-160730/unrestricted/IQP-BJS-TP11.pdf

The phosphorous mineral monazite is the major source of thorium in the earth’s crust. ¶ It is found in many types of sand and is mined in an open pit. Monazite is separated from other ¶ minerals in the sand by a series of physical and chemical processes, as shown in Figure A2. The ¶ products of these processes are 98% pure monazite concentrate and thorium tailings [Penny ¶ 2010]. ¶ After the pure monazite is extracted from sand, thorium is extracted from monazite. ¶ There are two generally used methods to accomplish this. The first is the acid method, in which ¶ sulfuric acid is used to obtain a thorium phosphate precipitate and lanthanide sulfate residues. ¶ This process produces a large amount of waste and is not considered to be very cost-efficient or ¶ safe [Penny 2010]

#### Mining of thorium produces health hazards and is not safe

Cara L. DiIorio, David J. Knight and Matthew P. Mancuso ADOPTION OF THORIUM POWER March 2 2012 https://www.wpi.edu/Pubs/E-project/Available/E-project-022912-160730/unrestricted/IQP-BJS-TP11.pdf

There is a surprising lack of information on the occupational and public health effects of ¶ thorium mining. One study points out that “thorium and its daughter products can be ¶ considered as potential health hazards by analogy with known health effects precipitated by ¶ other alpha emitting isotopes” \*Argonne National Laboratory 1979], but there is not much data ¶ on the subject. A study of 112 New Jersey households in the vicinity of a waste disposal site ¶ containing thorium waste revealed a slightly higher prevalence of birth defects and liver ¶ diseases than a control group, but no definitive conclusions could be drawn because of the ¶ small number of families studied and the wide confidence intervals used during analysis. ¶ However, the authors claim that “industrial and mining exposure to thorium have resulted in an ¶ increased incidence of lung cancer, pancreatic cancer, colorectal cancers, chronic respiratory ¶ diseases, liver damage, and other serious illnesses.” \*Najem 1990].

# Rd 6 v USC

### Off

#### "Financial incentives for energy production" involve the exchange of money for production.

Book 11 [Managing Director, ClearView Energy Partners, LLC]

Kevin, Testimony before U.S. HOUSE COMMITTEE ON WAYS AND MEANS,

SUBCOMMITTEES ON SELECT REVENUE MEASURES AND OVERSIGHT, SEPTEMBER 22, http://waysandmeans.house.gov/UploadedFiles/Booktestimony922.pdf

Incentive cost ratios, implied abatement costs and implied displacement costs offer three possible ways to measure the performance of **federal financial incentives for energy production** and consumption. Metrics of this sort could be used to prioritize spending – dynamically, perhaps through a reverse auction – or through legislated formulas **that balance incentives for high-yield, low-cost sources with high-potential, emerging sources.** Fuels or technologies that consistently fall short of established benchmarks may require a different type of government financial intervention (e**.g. manufacturing assistance or pre-competitive R&D** in place of production **tax credits**) or a different mode of financial support (e.g. loan guaranteesinstead of tax credits **or deductions)**.

#### For is a term of exclusion – requiring direct action upon

US CUSTOMS COURT 39 AMERICAN COLORTYPE CO. v. UNITED STATES C. D. 107, Protest 912094-G against the decision of the collector of customs at the port of New York UNITED STATES CUSTOMS COURT, THIRD DIVISION 2 Cust. Ct. 132; 1939 Cust. Ct. LEXIS 35

The same reasons used by the appellate court may be adopted in construing the language of the statute herein involved. If the words "for industrial use" mean no more than the words "articles of utility," there could be no reason for inserting the additional words "for industrial use" in the paragraph. Therefore, it must be held that the [\*135] new language "for industrial use" was intended to have a different meaning from the words "articles of utility," as construed in the case of Progressive Fine Arts Co. v. United States, [\*\*8] supra. Webster's New International Dictionary defines the word "industrial" as follows: Industrial. 1. Relating to industry or labor as an economic factor, or to a branch or the branches of industry; of the nature of, or constituting, an industry or industries \* \* \* . The transferring of the scenes on an oil painting to a printed copy is a branch of industry under the definition above quoted. Some of the meanings of the preposition "for" signify intent, as shown by the following definition in the same dictionary: For. 2. Indicating the end with reference to which anything is, acts, serves, or is done; as: a. As a preparation for; with the object of; in order to be, become, or act as; conducive to. \* \* \*. d. Intending, or in order, to go to or in the direction of. Therefore, the words "articles for industrial use" in paragraph 1807 imply that Congress intended to exclude from that provision articles either purchased or imported with the intention to use the same in industry for manufacturing purposes.

#### Energy Production distinct from material production, transport & waste treatment

Is Cumulative Fossil Energy Demand a Useful Indicator for the Environmental Performance of Products? M A R K A . J . HUIJBREGTS , \* , † L I N D A J . A . R O M B O U T S , † S T E F A N I E H E L L W E G , ‡ R O L F F R I S C H K N E C H T , § A . J A N H E N D R I K S , † D I K V A N D E M E E N T , † , | A D M . J . R A G A S , † L U C A S R E I J N D E R S , ⊥ A N D J A A P S T R U I J S | Department of Environmental Science, Institute for Wetland and Water Research, Faculty of Science, Radboud University Nijmegen, P.O. Box 9010, NL-6500 GL Nijmegen, The Netherlands, Institute for Chemical- and Bioengineering, Swiss Federal Institute of Technology Zu¨rich, CH-8093 Zu¨rich, Switzerland, Ecoinvent Centre, Ueberlandstrasse 129, CH-8600 Duebendorf, Switzerland, Laboratory for Ecological Risk Assessment, National Institute of Public Health and the Environment, P.O. Box 1, NL-3720 BA, Bilthoven, The Netherlands, and Institute for Biodiversity and Ecosystem Dynamics, University of Amsterdam, Nieuwe Achtergracht 166, NL-1018 WV, Amsterdam, The Netherlands 2006 American Chemical Society VOL. 40, NO. 3, 2006 / ENVIRONMENTAL SCIENCE & TECHNOLOGY 9 641 http://pubs.acs.org/doi/pdf/10.1021/es051689g

The appropriateness of the fossil Cumulative Energy Demand (CED) as an indicator for the environmental performance of products and processes is explored with a regression analysis between the environmental life-cycle impacts and fossil CEDs of 1218 products, divided into the product categories “energy production”, “material production”, “transport”, and “waste treatment”. Our results show that, for all product groups but waste treatment, the fossil CED correlates well with most impact categories, such as global warming, resource depletion, acidification, eutrophication, tropospheric ozone formation, ozone depletion, and human toxicity (explained variance between 46% and 100%). We conclude that the use of fossil fuels is an important driver of several environmental impacts and thereby indicative for many environmental problems. It may therefore serve as a screening indicator for environmental performance. However, the usefulness of fossil CED as a stand-alone indicator for environmental impact is limited by the large uncertainty in the product-specific fossil CEDbased impact scores (larger than a factor of 10 for the majority of the impact categories; 95% confidence interval). A major reason for this high uncertainty is nonfossil energy related emissions and land use, such as landfill leachates, radionuclide emissions, and land use in agriculture and forestry.

#### Vote Negative

#### Limits- there are infinite financial incentives that can be tied to things external to energy production- limiting the incentives part of the topic to directly involving production is key to limits because of the difficulty of defining what a restriction on energy production is

#### Our limit is the only non- arbitrary one because it is the most grammatically correct- financial incentives for energy production is an adjectival phrase- even if their aff is a financial incentive- it is not DIRECTLY for energy production

### Off

#### The United States Federal Government should offer diminishing market fixed production cost incentives for community and residential solar power solar generation. The incentives will diminish based on the cost competitiveness and on improvements in price and performance of the technology. The United States Federal Government should require just compensation for the excess power community and residential solar power operators place on the grid. The United States Federal Government should phase out current solar tax credits.

#### Production cost incentive key- Incentivizes fast learning in advanced factory manufacturing which is necessary for commercialization

Rosner and Goldberg 2011 (Robert Rosner, astrophysicist and founding director of the Energy Policy Institute at Chicago, and Stephen Goldberg, Special Assistant to the Director at the Argonne National Laboratory, Energy Policy Institute at Chicago, “Small Modular Reactors – Key to Future Nuclear Power Generation in the U.S.”, Technical Paper, Revision 1, November 2011)

Production Cost Incentive: A production cost incentive is a performance-based incentive. With a production cost incentive, the government incentive would be triggered only when the project successfully operates. The project sponsors would assume full responsibility for the upfront capital cost and would assume the full risk for project construction. The production cost incentive would establish a target price, a so-called “market-based benchmark.” Any savings in energy generation costs over the target price would accrue to the generator. Thus, a production cost incentive would provide a strong motivation for cost control and learning improvements, since any gains greater than target levels would enhance project net cash flow. Initial SMR deployments, without the benefits of learning, will have significantly higher costs than fully commercialized SMR plants and thus would benefit from production cost incentives. Because any production cost differential would decline rapidly due to the combined effect of module manufacturing rates and learning experience, the financial incentive could be set at a declining rate, and the level would be determined on a plant-by-plant basis, based on the achievement of cost reduction targets.43 The key design parameters for the incentive include the following:¶ 1. The magnitude of the deployment incentive should decline with the number of SMR modules and should phase out after the fleet of LEAD and FOAK plants has been deployed.¶ 2. The incentive should be market-based rather than cost-based; the incentive should take into account not only the cost of SMRs but also the cost of competing technologies and be set accordingly.¶ 3. The deployment incentive could take several forms, including a direct payment to offset a portion of production costs or a production tax credit.

#### Temporary, diminishing incentives are vital to inducing competition, technological innovation and ending subsidy dependence

**Jenkins, 12** – Director of Energy and Climate Policy at the Breakthrough Institute (Jesse, Congressional Testimony before the Senate Committee on Energy and Natural Resources, 5/22, <http://www.energy.senate.gov/public/index.cfm/files/serve?File_id=31b79a1a-83a0-4ae6-8c80-30fe754ad0ea>)

Recognizing that investment horizons, technology development cycles, and market conditions vary across advanced energy technology segments, precise policy mechanisms will likely differ from sector to sector. Yet whether through production or investment subsidies, consumer rebates, market-­‐creating regulations or standards, or other market incentives, we recommend that any advanced energy deployment subsidies meet the following policy design criteria. Reformed policies should:¶ 1. ESTABLISH A COMPETITIVE MARKET. Deployment policies should create market opportunities for advanced clean energy technologies while fostering competition between technology firms.¶ 2. DRIVE COST REDUCTIONS AND PERFORMANCE IMPROVEMENTS. Deployment policies should create market incentives and structures that demand and reward continual improvement in technology performance and cost.¶ 3. PROVIDE TARGETED AND TEMPORARY SUPPORT FOR MATURING TECHNOLOGIES. Deployment policies must not operate in perpetuity, but rather should be terminated if technology segments either fail to improve in price and performance or become competitive without subsidy.¶ 4. REDUCE SUBSIDY LEVELS IN RESPONSE TO CHANGING TECHNOLOGY COSTS. Deployment incentives should decline as technologies improve in price and performance to both conserve limited taxpayer and consumer resources and provide clear incentives for continued technology improvement.¶ 5. AVOID TECHNOLOGY LOCK-OUT AND PROMOTE A DIVERSE ENERGY PORTFOLIO. Deployment incentives should be structured to create market opportunities for energy technologies at different levels of maturity, including new market entrants, to ensure that each has a chance to mature while allowing technologies of similar maturity levels to compete amongst themselves.

#### Conditioning new incentives on price competition solves the aff better and avoids our disads

**Hayward, 10** – resident scholar at the American Enterprise Institute (Steven, “Post-Partisan Power: How a Limited and Direct Approach to Energy Innovation Can Deliver Clean, Cheap Energy, Economic Productivity and National Prosperity”, October, <http://thebreakthrough.org/blog/Post-Partisan%20Power.pdf>)

The government has a long history of successfully driving innovation and price declines in emerging technologies by acting directly as a demanding customer to spur the early commercialization and largescale deployment of cutting-edge technologies. From radios and microchips to lasers and camera lenses, the federal government, in particular the DOD, has helped catalyze the improvement of countless innovative technologies and supported the emergence of vibrant American industries in the process. 67¶ Yet today’s mess of open-ended energy subsidies reward production of more of the same product, not innovation. The federal government showers subsidies across many energy options, from oil and coal to ethanol and wind power. None of these efforts, however, are designed or optimized to drive and reward innovation and ensure the prices of these technologies fall over time, making the subsidies effectively permanent. This must change.¶ Competitive Deployment Incentives¶ The current energy subsidy and deployment framework should be turned on its head. Government investments succeed not when they are blanket subsidies but rather when they are narrowly targeted to specific outcomes, such as developing computers to allow for rocket systems, building a communications network to survive a nuclear attack, or creating increasingly efficient and powerful jet engines. These public investments paid off handsomely in personal computers, the Internet, and gas turbines used in both commercial air travel as well as modern natural gas power plants. 68¶ In an era of expanding federal debt, across-the-board energy subsidy reform should be pursued. Incentives for energy technology deployment should be targeted and disciplined. Technologies should receive competitive deployment incentives only to the extent that they are becoming cheaper in unsubsidized terms over time. ¶ The strategy that we propose would be aimed at low-carbon technologies that, at a minimum, satisfy the following criteria: ¶  The technology has been demonstrated and has proven technical feasibility at commercial scale; ¶  Is currently priced above normal market rates and is locked out of markets by more mature, ¶ entrenched technology competitors; ¶  Has potential for significant and sustained cost and performance improvements during deployment ¶ and scale-up; ¶ #Has strong prospects for significant market penetration once the technology reaches competitive ¶ prices. ¶ Targeted and competitive deployment incentives could be created for various classes of energy technologies to ensure that each has a chance to mature. Incentive levels should fall at regular intervals, terminating if the technology class either fails to improve in price or reaches cost parity in the absence of any further incentives.¶ Structured in this manner, reformed national energy deployment incentives will not select winners and losers, nor will it create permanently subsidized industries. These public investments will instead provide opportunity for all emerging low-carbon energy technologies to demonstrate progress toward competitive costs while increasing the rate at which early-stage clean and affordable energy technologies are commercialized.

#### The CP prevents the collapse of the energy bubble – solves competitiveness

**Swezey, 11** – project director for The Breakthrough Institute (Devon, “Clean Tech Sector Heading for a Major Crash” 7/11, <http://blacklistednews.com/?news_id=14600&print=1>)

¶ The global clean energy industry is set for a major crash. The reason is simple. Clean energy is still much more expensive and less reliable than coal or gas, and in an era of heightened budget austerity the subsidies required to make clean energy artificially cheaper are becoming unsustainable.¶ Clean tech crashes are nothing new. The U.S. wind energy industry has collapsed three times before, first in the mid 1990s and most recently in 2002 and 2004 when Congress failed to extend the tax credit that made it profitable. But the impact and magnitude of the coming clean tech crash will far outstrip those of past years.¶ As part of its effort to combat the economic recession, the federal government pumped nearly $80 billion in direct investment and tax credits into the clean energy sector, catalyzing an unprecedented industry expansion. Solar energy, for example, grew 67% in the United States in 2010. The U.S. wind energy industry also experienced unprecedented growth as a result of the generous Section 1603 clean energy stimulus program. The industry grew by 40% and added 10 GW of new turbines in 2009. Yet many of the federal subsidies that have driven such rapid growth are set to expire in the next few years, and clean energy remains unable to compete without them.¶ The crash won't be limited to the United States. In many European countries, clean energy subsidies have become budget casualties as governments attempt to curb mounting deficits. Spain, Germany, France, Italy and the Czech Republic have all announced cuts to clean energy subsidies.¶ Such cuts are not universal, however. China, flush with cash, is bucking the trend, committing $760 billion over 10 years for clean energy projects. China is continuing to invest in low-carbon energy as a way of meeting its voracious energy demand, diversifying its electricity supply, and alleviating some of the negative health consequences of its reliance on fossil energy.¶ If U.S. and European clean energy markets collapse while investment continues to ramp up in China, the short-term consequences will likely be a migration of much of the industry to Asia. As we wrote in our 2009 report, "Rising Tigers, Sleeping Giant," this would have significant economic consequences for the United States, as the jobs, revenues and other benefits of clean tech growth accrue overseas.¶ In the long-term, however, clean energy must become much cheaper and more reliable if it is to widely displace fossil fuels on the scale of national economies and become a commercially viable industry.¶ Breaking the Boom-Bust Cycle¶ Why is the United States still locked in this self-perpetuating boom-bust cycle in clean energy? The problem, according to a new essay by energy experts David Victor and Kassia Yanosek in this week's Foreign Affairs, is that our system of clean energy subsidization is jury-rigged to support the deployment of only the least-risky and most mature clean energy technologies, while lacking clear incentives for continual innovation that could make clean energy competitive on cost with conventional energy sources. Rather, we should "invest in more innovative technologies that stand a better chance of competing with conventional energy sources over the long haul." According to Victor and Yanosek, nearly seven-eighths of global clean energy investment goes toward deploying existing technologies that aren't competitive without subsidy, while only a small share goes to encouraging innovation in existing technologies or developing new ones.¶ This must change. Rather than simply subsidize production of current technologies, we need a comprehensive energy innovation strategy to develop, manufacture, and deploy riskier but more promising clean energy technologies that may eventually compete with fossil energy at scale. Instead of rewarding companies for building the same product, we should reward companies who continuously improve designs and cut costs over time.¶ Such a federal strategy will require major federal investments, but of a different kind than the subsidies that have driven the clean tech industry in years past. For starters, we must dramatically ramp up funding for early-stage clean energy research and development. A growing bipartisan group of think tanks and business leaders have pushed an investment of at least $15 billion annually in energy R&D, up from its current $4 billion level.¶ Targeted funding is needed to solve technology challenges and ensure that innovative technologies can develop and improve. One key program that helps fulfill this need is ARPA-E, which funds a portfolio of innovative technology companies and helps connect them with private investors. But ARPA-E's budget has continually been under assault in budget negotiations, hampering its ability to catalyze innovation in the energy sector and limiting its impact.¶ We also need to invest in cutting-edge advanced manufacturing capabilities and shared technology infrastructure that would help U.S. companies cut costs and improve manufacturing processes. As the President's Council of Advisors on Science and Technology wrote in a report released last week, manufacturing is vital to innovation, "because of the synergies created by locating production processes and design processes near to each other." Furthermore, bringing down manufacturing costs, such as by supporting shared infrastructure for small firms, or offering financing for the adoption of innovative technologies in manufacturing, will be a key component of reducing the costs of new clean energy innovations.¶ Lastly, the nation's hodgepodge of energy deployment subsidies is in dire need of reform. As Breakthrough and colleagues wrote in "Post-Partisan Power," we need an energy deployment regime that demands and rewards innovation, rather than just supporting more of the same. Brookings' Mark Muro (a co-author or PPP) expands, "targeted and competitive deployment incentives could be created for various classes of energy technologies that would ensure that each has a chance to mature even as each is challenged to innovate and locate price declines." Rather than create permanently subsidized industries, such investments would "provide the opportunity for opportunity for all emerging low-carbon energy technologies to demonstrate progress toward competitive costs," while speeding commercialization.¶ It is clear that the current budgetary environment in the United States presents challenges to the viability of the fast-growing clean energy industry. But it also presents an opportunity. By repurposing existing clean energy policies and investing in clean energy innovation, the United States can be the first country to make clean energy cheap and reliable, a distinction that is sure to bring major economic benefits in a multi-trillion dollar energy market.

#### Competitiveness key to heg prevents 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

**T**here is no doubt that economics alone will not determine the balance of global power, but there is no doubt either that economics has come to matter for more.¶ The management of the economy, and of the treasury, has been a vital aspect of statecraft from time immemorial. Kautilya’s *Arthashastra* says, ‘From the strength of the treasury the army is born. …men without wealth do not attain their objectives even after hundreds of trials… Only through wealth can material gains be acquired, as elephants (wild) can be captured only by elephants (tamed)… A state with depleted resources, even if acquired, becomes only a liability.’4 Hence, economic policies and performance do have strategic consequences.5¶ 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.¶ Apart from such fiscal disempowerment of the state, economic under-performance would also reduce a nation’s attraction as a market, a source of capital and technology, and as a ‘knowledge power’. As power shifted from Europe to America, so did the knowledge base of the global economy. As China’s power rises, so does its profile as a ‘knowledge economy’.¶ Impressed by such arguments the China Academy of Social Sciences developed the concept of Comprehensive National Power (CNP) to get China’s political and military leadership to focus more clearly on economic and technological performance than on military power alone in its quest for Great Power status.8¶ While China’s impressive economic performance and the consequent rise in China’s global profile has forced strategic analysts to acknowledge this link, the recovery of the US economy in the 1990s had reduced the appeal of the Kennedy thesis in Washington DC. We must expect a revival of interest in Kennedy’s arguments in the current context.¶ **A** historian of power who took Kennedy seriously, Niall Ferguson, has helped keep the focus on the geopolitical implications of economic performance. In his masterly survey of the role of finance in the projection of state power, Ferguson defines the ‘square of power’ as the tax bureaucracy, the parliament, the national debt and the central bank. These four institutions of ‘fiscal empowerment’ of the state enable nations to project power by mobilizing and deploying financial resources to that end.9 ¶ Ferguson shows how vital sound economic management is to strategic policy and national power. More recently, Ferguson has been drawing a parallel between the role of debt and financial crises in the decline of the Ottoman and Soviet empires and that of the United States of America. In an early comment on the present financial crisis, Ferguson wrote:¶ ‘We are indeed living through a global shift in the balance of power very similar to that which occurred in the 1870s. This is the story of how an over-extended empire sought to cope with an external debt crisis by selling off revenue streams to foreign investors. The empire that suffered these setbacks in the 1870s was the Ottoman empire. Today it is the US… It remains to be seen how quickly today’s financial shift will be followed by a comparable geopolitical shift in favour of the new export and energy empires of the east. Suffice to say that the historical analogy does not bode well for America’s quasi-imperial network of bases and allies across the Middle East and Asia. Debtor empires sooner or later have to do more than just sell shares to satisfy their creditors*. …*as in the 1870s the balance of financial power is shifting. Then, the move was from the ancient Oriental empires (not only the Ottoman but also the Persian and Chinese) to Western Europe. Today the shift is from the US – and other western financial centres – to the autocracies of the Middle East and East Asia.’10 ¶ An economic or financial crisis may not trigger the decline of an empire. It can certainly speed up a process already underway. In the case of the Soviet Union the financial crunch caused by the Afghan war came on top of years of economic under-performance and the loss of political legitimacy of the Soviet state. In a democratic society like the United States the political legitimacy of the state is constantly renewed through periodic elections. Thus, the election of Barack Obama may serve to renew the legitimacy of the state and by doing so enable the state to undertake measures that restore health to the economy. This the Soviet state was unable to do under Gorbachev even though he repudiated the Brezhnev legacy and distanced himself from it.¶ Hence, one must not become an economic determinist and historic parallels need not always be relevant. Politics can intervene and offer solutions. Political economy and politics, in the form of Keynesian economics and the ‘New Deal’, did intervene to influence the geopolitical implications of the Great Depression. Whether they will do so once again in today’s America remains to be seen.

### Off

#### Obama PC causes immigration reform pass- has to keep coalition together

Robinson 2-6 [Eugene Robinson 2-6-2013 Springfield News-Leader “Imagine this: Immigration reform in next few months” http://www.news-leader.com/article/20130207/OPINIONS04/302070033/Imagine-this-Immigration-reform-in-next-few-months?nclick\_check=1]

Given the extensive overlap between the “principles” laid out by a bipartisan group of senators and those offered by President Obama, I believe there is a strong possibility that immigration reform can be accomplished within the next few months. But it still won’t be easy.¶ Sen. Marco Rubio, R-Fla., the key member of the Senate’s pro-reform “Gang of Eight,” is being pilloried from the right for facing economic, sociological and political reality.¶ Sen. David Vitter, R-La., called Rubio “amazingly naive on this issue” and also “nuts.” Some of the conservative commentariat has been less reserved.¶ Many establishment figures in the party accept that the GOP cannot thrive, and perhaps cannot even survive, if the nation’s biggest minority group becomes a permanent part of the Democratic Party coalition. They understand Rubio’s analysis that immigration is a “threshold” issue for Latino voters — that if Republicans are seen as uncompromising and even hostile on this issue, many Latinos will not even give the party a hearing on the rest of its philosophy and agenda.¶ The central task of immigration reform is the most controversial: designing some sort of legal status for the 11 million.¶ Critics on the right complain that this is unfair to would-be immigrants who are “waiting in line” to come into the country by following the rules. Some would have to wait years.¶ Truly comprehensive reform would include designing a viable legal pathway for those who want to come here and contribute their ambition, determination and skills. No such pathway exists now.¶ Far as I can tell, there is little meaningful difference between the Gang of Eight’s plan and Obama’s plan. You will hear lots of noise about border security and enforcement. Feel free to pay no attention.¶ Pro- and anti-reform Republicans will both agree that the Obama administration is somehow weak on enforcement.¶ This is a laughable fiction; border security is much tougher under Obama than under his predecessors, and deportations have soared.¶ Republicans are eager to talk about some kind of temporary-worker program to accommodate those who come here with the intention of working for a time and then return to their home countries. Obama’s framework for reform does not include a guest-worker provision, but the White House has indicated a willingness to look at the possibility.¶ Obama and a group of influential senators of both parties will try to work together to bring 11 million people out of the shadows. Our government is tackling a big problem and may actually solve it. Imagine that.

#### Plan costs capital – Grant program is controversial in congress; extensions have been contentious votes

Rodman Admin, March 22 2012 http://www.rodmancpa.com/refusal-to-extend-1603-grants-will-hit-smaller-projects-hard/

Earlier this month, Congress had an opportunity to boost the renewables economy by passing an amendment that would extend the 1603 Grant Program for another year.  The failure of this legislation to pass (by a 49-49 Senate vote) is disappointing to all who are involved in the renewable energy arena.  The loss of this source of grant money will create new challenges for the future.  The renewable energy economy is not completely felled by the expiration of the 1603.  The program reverts back to the Investment Tax Credit (ITC) through 2016, which allows for a 30% tax credit (instead of the cash grant) for certain renewable energy projects.

#### Solves US-India relations

**LA Times**, 11/9/**20**12 (Other countries eagerly await U.S. immigration reform, p. http://latimesblogs.latimes.com/world\_now/2012/11/us-immigration-reform-eagerly-awaited-by-source-countries.html)

"Comprehensive immigration reform will see expansion of skilled labor visas," predicted B. Lindsay Lowell, director of policy studies for the Institute for the Study of International Migration at Georgetown University. A former research chief for the congressionally appointed Commission on Immigration Reform, Lowell said he expects to see at least a fivefold increase in the number of highly skilled labor visas that would provide "a significant shot in the arm for India and China." There is widespread consensus among economists and academics that skilled migration fosters new trade and business relationships between countries and enhances links to the global economy, Lowell said. "Countries like India and China weigh the opportunities of business abroad from their expats with the possibility of brain drain, and I think they still see the immigration opportunity as a bigger plus than not," he said.

#### US/India relations averts South Asian nuclear war

Schaffer, Spring **200**2 (Teresita – Director of the South Asia Program at the Center for Strategic and International Security, Washington Quarterly, p. Lexis)

Washington's increased interest in India since the late 1990s reflects India's economic expansion and position as Asia's newest rising power. New Delhi, for its part, is adjusting to the end of the Cold War. As a result, both giant democracies see that they can benefit by closer cooperation. For Washington, the advantages include a wider network of friends in Asia at a time when the region is changing rapidly, as well as a stronger position from which to help calm possible future nuclear tensions in the region. Enhanced trade and investment benefit both countries and are a prerequisite for improved U.S. relations with India. For India, the country's ambition to assume a stronger leadership role in the world and to maintain an economy that lifts its people out of poverty depends critically on good relations with the United States.

#### Extinction

Starr ’11 (Consequences of a Single Failure of Nuclear Deterrence by Steven Starr February 07, 2011, Associate member of the Nuclear Age Peace Foundation \* Senior Scientist for PSR

Only a single failure of nuclear deterrence is required to start a nuclear war, and the consequences of such a failure would be profound. Peer-reviewed studies predict that less than 1% of the nuclear weapons now deployed in the arsenals of the Nuclear Weapon States, if detonated in urban areas, would immediately kill tens of millions of people, and cause long-term, catastrophic disruptions of the global climate and massive destruction of Earth’s protective ozone layer. The result would be a global nuclear famine that could kill up to one billion people. A full-scale war, fought with the strategic nuclear arsenals of the United States and Russia, would so utterly devastate Earth’s environment that most humans and other complex forms of life would not survive. Yet no Nuclear Weapon State has ever evaluated the environmental, ecological or agricultural consequences of the detonation of its nuclear arsenals in conflict. Military and political leaders in these nations thus remain dangerously unaware of the existential danger which their weapons present to the entire human race. Consequently, nuclear weapons remain as the cornerstone of the military arsenals in the Nuclear Weapon States, where nuclear deterrence guides political and military strategy. Those who actively support nuclear deterrence are trained to believe that deterrence cannot fail, so long as their doctrines are observed, and their weapons systems are maintained and continuously modernized. They insist that their nuclear forces will remain forever under their complete control, immune from cyberwarfare, sabotage, terrorism, human or technical error. They deny that the short 12-to-30 minute flight times of nuclear missiles would not leave a President enough time to make rational decisions following a tactical, electronic warning of nuclear attack. The U.S. and Russia continue to keep a total of 2000 strategic nuclear weapons at launch-ready status – ready to launch with only a few minutes warning. Yet both nations are remarkably unable to acknowledge that this high-alert status in any way increases the probability that these weapons will someday be used in conflict. How can strategic nuclear arsenals truly be “safe” from accidental or unauthorized use, when they can be launched literally at a moment’s notice? A cocked and loaded weapon is infinitely easier to fire than one which is unloaded and stored in a locked safe. The mere existence of immense nuclear arsenals, in whatever status they are maintained, makes possible their eventual use in a nuclear war. Our best scientists now tell us that such a war would mean the end of human history. We need to ask our leaders: Exactly what political or national goals could possibly justify risking a nuclear war that would likely cause the extinction of the human race? However, in order to pose this question, we must first make the fact known that existing nuclear arsenals – through their capacity to utterly devastate the Earth’s environment and ecosystems – threaten continued human existence. Otherwise, military and political leaders will continue to cling to their nuclear arsenals and will remain both unwilling and unable to discuss the real consequences of failure of deterrence. We can and must end the silence, and awaken the peoples of all nations to the realization that “nuclear war” means “global nuclear suicide”. A Single Failure of Nuclear Deterrence could lead to: \* A nuclear war between India and Pakistan; \* 50 Hiroshima-size (15 kiloton) weapons detonated in the mega-cities of both India and Pakistan (there are now 130-190 operational nuclear weapons which exist in the combined arsenals of these nations); \* The deaths of 20 to 50 million people as a result of the prompt effects of these nuclear detonations (blast, fire and radioactive fallout); \* Massive firestorms covering many hundreds of square miles/kilometers (created by nuclear detonations that produce temperatures hotter than those believed to exist at the center of the sun), that would engulf these cities and produce 6 to 7 million tons of thick, black smoke; \* About 5 million tons of smoke that would quickly rise above cloud level into the stratosphere, where strong winds would carry it around the Earth in 10 days; \* A stratospheric smoke layer surrounding the Earth, which would remain in place for 10 years; \* The dense smoke would heat the upper atmosphere, destroy Earth’s protective ozone layer, and block 7-10% of warming sunlight from reaching Earth’s surface; \* 25% to 40% of the protective ozone layer would be destroyed at the mid-latitudes, and 50-70% would be destroyed at northern and southern high latitudes; \* Ozone destruction would cause the average UV Index to increase to 16-22 in the U.S, Europe, Eurasia and China, with even higher readings towards the poles (readings of 11 or higher are classified as “extreme” by the U.S. EPA). It would take 7-8 minutes for a fair skinned person to receive a painful sunburn at mid-day; \* Loss of warming sunlight would quickly produce average surface temperatures in the Northern Hemisphere colder than any experienced in the last 1000 years; \* Hemispheric drops in temperature would be about twice as large and last ten times longer then those which followed the largest volcanic eruption in the last 500 years, Mt. Tambora in 1816. The following year, 1817, was called “The Year Without Summer”, which saw famine in Europe from massive crop failures; \* Growing seasons in the Northern Hemisphere would be significantly shortened. It would be too cold to grow wheat in most of Canada for at least several years; \* World grain stocks, which already are at historically low levels, would be completely depleted; grain exporting nations would likely cease exports in order to meet their own food needs; \* The one billion already hungry people, who currently depend upon grain imports, would likely starve to death in the years following this nuclear war; \* The total explosive power in these 100 Hiroshima-size weapons is less than 1% of the total explosive power contained in the currently operational and deployed U.S. and Russian nuclear forces.

### Off

#### 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

#### 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.

### Grid Adv

#### Grid resilient

Clark 2012 (Paul Clark, MA candidate in Intelligence Studies at American Military University, April 28, 2012, “The Risk of Disruption or Destruction of Critical U.S. Infrastructure by an Offensive Cyber Attack,” American Military University, online)

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

#### Cyber-terrorism is drastically exaggerated – no major attack has happened and 99 percent of hackers couldn’t inflict serious damage

USIP (United States Institute for Peace) December 2004 “Cyberterrorism How Real Is the Threat?” Cyberterrorism

How Real Is the Threat?

Amid all the dire warnings and alarming statistics that the subject of cyberterrorism generates, it is important to remember one simple statistic: so far, there has been no recorded instance of a terrorist cyberattack on U.S. public facilities, transportation systems, nuclear power plants, power grids, or other key components of the national infrastructure. Cyberattacks are common, but they have not been conducted by terrorists and they have not sought to inflict the kind of damage that would qualify them as cyberterrorism. Technological expertise and use of the Internet do not constitute evidence of planning for a cyberattack. Joshua Green (“The Myth of Cyberterrorism,” Washington Monthly, November 2002) makes this point after reviewing the data retrieved from terrorists in Afghanistan: When U.S. troops recovered al Qaeda laptops in Afghanistan, officials were surprised to find its members more technologically adept than previously believed. They discovered structural and engineering software, electronic models of a dam, and information on computerized water systems, nuclear power plants, and U.S. and European stadiums. But nothing suggested they were planning cyberattacks, only that they were using the Internet to communicate and coordinate physical attacks. Neither al Qaeda nor any other terrorist organization appears to have tried to stage a serious cyberattack. For now, insiders or individual hackers are responsible for most attacks and intrusions and the hackers’ motives are not political. According to a report issued in 2002 by IBM Global Security Analysis Lab, 90 percent of hackers are amateurs with limited technical proficiency, 9 percent are more skilled at gaining unauthorized access but do not damage the files they read, and only 1 percent are highly skilled and intent on copying files or damaging programs and systems. Most hackers, it should be noted, try to expose security flaws in computer software, mainly in the operating systems produced by Microsoft. Their efforts in this direction have sometimes embarrassed corporations but have also been responsible for alerting the public and security professionals to serious security flaws. Moreover, although there are hackers with the ability to damage systems, disrupt e-commerce, and force websites offline, the vast majority of hackers do not have the necessary skills and knowledge. The ones who do, generally do not seek to wreak havoc. Douglas Thomas, a professor at the University of Southern California, spent seven years studying computer hackers in an effort to understand better who they are and what motivates them. Thomas interviewed hundreds of hackers and explored their “literature.” In testimony on July 24, 2002, before the House Subcommittee on Government Efficiency, Financial Management and Intergovernmental Relations, Thomas argued that “with the vast majority of hackers, I would say 99 percent of them, the risk [of cyberterrorism] is negligible for the simple reason that those hackers do not have the skill or ability to organize or execute an attack that would be anything more than a minor inconvenience.” His judgment was echoed in Assessing the Risks of Cyberterrorism, Cyber War, and Other Cyber Threats, a 2002 report for the Center for Strategic and International Studies, written by Jim Lewis, a sixteen-year veteran of the State and Commerce Departments. “The idea that hackers are going to bring the nation to its knees is too far-fetched a scenario to be taken seriously,” Lewis argued. “Nations are more robust than the early analysts of cyberterrorism and cyberwarfare give them credit for. Infrastructure systems [are] more flexible and responsive in restoring service than the early analysts realized, in part because they have to deal with failure on a routine basis.” Many computer security experts do not believe that it is possible to use the Internet to inflict death on a large scale. Some pointed out that the resilience of computer systems to attack is the result of significant investments of time, money, and expertise. As Green describes, nuclear weapons systems are protected by “air-gapping”: they are not connected to the Internet or to any open computer network and thus they cannot be accessed by intruders, terrorists, or hackers. Thus, for example, the Defense Department protects sensitive systems by isolating them from the Internet and even from the Pentagon’s own internal network. The CIA’s classified computers are also air-gapped, as is the FBI’s entire computer system.

#### No motivation – terrorists perceive other methods as more worthwhile

Sandeep Bhardwaj (Research Officer, Institute of Peace and Conflict Studies) August 2008 “Cyberterrorism: Threat Exaggerated?” http://www.ipcs.org/Terrorism\_kashmirLevel2.jsp?action=showView&kValue=2675&subCatID=1014&status=article&mod=g

In conclusion, while the threat of cyber terrorism in terms of hacking, viruses and cyber attacks remains real, it is less serious than it is perceived to be. For a terrorist, a simple cost-benefit analysis would make clear that an IED, built with much less technical know-how, has a much larger impact than bringing down government networks. However, a much more pertinent and significant threat which is often ignored, is the help terrorists get from internet to make their operations easier, global and hence more effective. The internet is a tool that can be used to increase productivity and this could well refer to how much destruction can be caused in the world.

#### The threshold for this impact is incredibly high – no chance of serious cyber war

Dr. James A. Lewis, senior fellow at CSIS where he writes on technology, national security and the international economy, October 2009 “The “Korean” Cyber Attacks and Their Implications for Cyber Conflict”

http://csis.org/files/publication/091023\_Korean\_Cyber\_Attacks\_and\_Their\_Implications\_for\_Cyber\_Conflict.pdf

Only a few nations –Russia, China, Israel, France, the United States, and the United Kingdom, and perhaps a small number of the most sophisticated cyber criminals – have the advanced capabilities needed to launch a cyber attack that could do serious and long-term damage equivalent to sabotage or bombing and thus rise to the level of an act of war. A sophisticated attack against infrastructure requires planning, reconnaissance, resources and skills that are currently available only to these advanced cyber attackers. As part of their larger military planning, these nations have likely planned to launch such attacks in the event of a crisis.8 Such attacks are not yet within the scope of capabilities possessed by most non-state hackers. Serious cyber attack independent of some larger conflict is unlikely. To transpose cyber to the physical world, there are remarkably few instances of a nation engaging in covert sabotage attacks against another nation (particularly larger powers) unless they were seeking to provoke or if conflict was imminent. The political threshold for serious cyber attack (as opposed to espionage) by a nation-state is very high, likely as high as the threshold for conventional military action. At a minimum, this suggests that a serious cyber attack is a precursor, a warning, that some more serious conflict is about to begin. Absent such larger conflict, however, a nation-state is no more likely to launch a serious cyber attack than they are to shoot a random missile at an opponent.9 The risk is too great and the benefits of a cyber attack by itself too small for political leaders to authorize the use of this capability in anything short of a situation where they had already decided on military action. Cyber weapons are not decisive; cyber attack by itself will not win a conflict, particularly against a large and powerful opponent. It is striking that to date; no cyber "attack" that rises above the level of espionage or crime has been launched outside of a military conflict.

#### The failed states impact is empirically denied- several failed states have festered for decades, remains contained because great powers have no vital interests get involved- Multiple development barriers make them inevitable too

#### US not key to global economy—Sustainable decoupling post-recession

**Chaudhary 2010**—Neeraj Chaudhary, Investment Consultant in the Los Angeles branch of Euro Pacific Capital, October 21, 2010, “Global Economic Decoupling Alive and Well,” http://www.marketoracle.co.uk/Article23670.html

While the US economy continues to weaken (see my recent commentary: Don't Doubt the Double-Dip), many foreign economies continue to experience solid -- even spectacular -- economic growth. When the global economic crisis began in 2008, many forecasters doubted that the world economy could return to growth without the US consumer. But the world is learning what Peter Schiff has long predicted: that the US consumer is a drag on the world economy, not an engine for growth. As "decoupling" becomes more apparent, emerging economies are forming trade links among themselves, accelerating the process of decline for the United States. To get a better understanding of how decoupling works, it helps to picture a train in motion. Together, the cars and engine travel together on the track. Now imagine that last car, the caboose, detaches from the rest of the train. At first, the caboose travels at nearly the same speed as the rest of the train. The distance between the two is hardly discernable. Over time, however, the car slows down as friction and gravity take their toll. Meanwhile, the engine powers ahead. The distance between the caboose and the train gradually becomes greater and greater, until finally the engine is gone from sight, leaving the caboose sitting idle on the track. This process describes how many of the world's economies are steadily pulling away from the United States. As trade links grow between countries far from our shores (such as those being solidified between Asia and South America), the distance between the United States and the rest of the world is becoming larger, and decoupling is becoming more and more pronounced. While the US economy sputtered to a 1.6% growth rate in the 2nd quarter (Q2), many Asian countries rapidly pulled away, powered by trade with each other and the rest of the world. In Q2, China's economy grew a startling 10.3%. Americans would be thrilled with growth half that rate. Asia's second rising star, India, expanded by a solid 8.8%. The Four Tigers also posted excellent numbers: Hong Kong grew at a 6.5% clip, South Korea at a faster 7.1%, and Taiwan at 12.53% -- while Singapore clocked an astonishing 18.8% growth rate! If that's not decoupling, I don't know what is. These numbers are not likely to be a short-term phenomenon. Instead, I feel they represent a dramatic realignment in the pattern of global economic activity. Economies that have long enjoyed a trade surplus are now less likely to loan money to broke and bloated deficit economies such as the United States. They are now more inclined to consume their own production or trade with other exporting nations. Indeed, China is now the largest trading partner for several of the world's major economies, including Japan, South Korea, India, Hong Kong, Taiwan, Australia, Russia, and Brazil. Slowed by the gravity of excess debt and the friction of increasing taxes and regulation, the American caboose is straining to keep up. But the trend is not limited to Asia. All around the world, countries with sound economic policies are continuing to expand. In fact, despite the attention paid to the so-called PIIGS, several European economies are also showing signs of decoupling. Germany, Europe's economic powerhouse, grew at 2.2% in Q2 - its fastest rate in over 20 years! Switzerland expanded by 3.4% in the 2nd quarter, while Sweden and Finland grew by 4.6% and 3.7% respectively. Even historically tumultuous Poland boasted a 3.5% growth rate. Predictably, this growth has whetted Europe's appetite for imports, causing the EU to recently surpass the US as China's largest export market. The trend also extends to producers of the single most important commodity in the world: oil. According to the Department of Energy, the US imports over 60% of its oil consumption; however, new production is increasingly being diverted to international markets, leaving our country vulnerable to 1970s-style shortages. In the 1st quarter of this year, Saudi Arabia exported more oil to China than it did to the US. With a new growth market for its petroleum, Saudi Arabia is estimated to grow 3.9% this year. Russia grew at a rate of 5.2% in Q2, largely for the same reason. China is now believed to be Iran's largest trading partner, according to some sources. And although the United States remains Venezuela's largest trading partner, China's nearly insatiable demand for oil has catapulted it into 2nd place for trade with this oil-exporting nation. Whether you are looking at ASEAN, OPEC, or the EU, it is clear that decoupling is the order of the day. The world economy is rebuilding itself with China as its engine and hub. This is the essence of decoupling, and until recently, it was thought by many respected figures to be impossible. In the old days, it was said that when the United States sneezed, the rest of the world caught a cold. This time, they might just excuse themselves and move to the next car.

#### Econ resilient

Fareed Zakaria (editor of Newsweek International) December 2009 “The Secrets of Stability,” http://www.newsweek.com/id/226425/page/2]

One year ago, the world seemed as if it might be coming apart. The global financial system, which had fueled a great expansion of capitalism and trade across the world, was crumbling. All the certainties of the age of globalization—about the virtues of free markets, trade, and technology—were being called into question. Faith in the American model had collapsed. The financial industry had crumbled. Once-roaring emerging markets like China, India, and Brazil were sinking. Worldwide trade was shrinking to a degree not seen since the 1930s. Pundits whose bearishness had been vindicated predicted we were doomed to a long, painful bust, with cascading failures in sector after sector, country after country. In a widely cited essay that appeared in The Atlantic n this May, Simon Johnson, former chief economist of the International Monetary Fund, wrote: "The conventional wisdom among the elite is still that the current slump 'cannot be as bad as the Great Depression.' This view is wrong. What we face now could, in fact, be worse than the Great Depression." Others predicted that these economic shocks would lead to political instability and violence in the worst-hit countries. At his confirmation hearing in February, the new U.S. director of national intelligence, Adm. Dennis Blair, cautioned the Senate that "the financial crisis and global recession are likely to produce a wave of economic crises in emerging-market nations over the next year." Hillary Clinton endorsed this grim view. And she was hardly alone. Foreign Policy ran a cover story predicting serious unrest in several emerging markets. Of one thing everyone was sure: nothing would ever be the same again. Not the financial industry, not capitalism, not globalization. One year later, how much has the world really changed? Well, Wall Street is home to two fewer investment banks (three, if you count Merrill Lynch). Some regional banks have gone bust. There was some turmoil in Moldova and (entirely unrelated to the financial crisis) in Iran. Severe problems remain, like high unemployment in the West, and we face new problems caused by responses to the crisis—soaring debt and fears of inflation. But overall, things look nothing like they did in the 1930s. The predictions of economic and political collapse have not materialized at all. A key measure of fear and fragility is the ability of poor and unstable countries to borrow money on the debt markets. So consider this: the sovereign bonds of tottering Pakistan have returned 168 percent so far this year. All this doesn't add up to a recovery yet, but it does reflect a return to some level of normalcy. And that rebound has been so rapid that even the shrewdest observers remain puzzled. "The question I have at the back of my head is 'Is that it?' " says Charles Kaye, the co-head of Warburg Pincus. "We had this huge crisis, and now we're back to business as usual?"This revival did not happen because markets managed to stabilize themselves on their own. Rather, governments, having learned the lessons of the Great Depression, were determined not to repeat the same mistakes once this crisis hit. By massively expanding state support for the economy—through central banks and national treasuries—they buffered the worst of the damage. (Whether they made new mistakes in the process remains to be seen.) The extensive social safety nets that have been established across the industrialized world also cushioned the pain felt by many. Times are still tough, but things are nowhere near as bad as in the 1930s, when governments played a tiny role in national economies. It's true that the massive state interventions of the past year may be fueling some new bubbles: the cheap cash and government guarantees provided to banks, companies, and consumers have fueled some irrational exuberance in stock and bond markets. Yet these rallies also demonstrate the return of confidence, and confidence is a very powerful economic force. When John Maynard Keynes described his own prescriptions for economic growth, he believed government action could provide only a temporary fix until the real motor of the economy started cranking again—the animal spirits of investors, consumers, and companies seeking risk and profit. Beyond all this, though, I believe there's a fundamental reason why we have not faced global collapse in the last year. It is the same reason that we weathered the stock-market crash of 1987, the recession of 1992, the Asian crisis of 1997, the Russian default of 1998, and the tech-bubble collapse of 2000. The current global economic system is inherently more resilient than we think. The world today is characterized by three major forces for stability, each reinforcing the other and each historical in nature.

#### Economic collapse doesn’t cause war – no causal connection

Thomas P.M. Barnett (senior managing director of Enterra Solutions LLC and a contributing editor/online columnist for Esquire magazine) August 2009 “The New Rules: Security Remains Stable Amid Financial Crisis” http://www.aprodex.com/the-new-rules--security-remains-stable-amid-financial-crisis-398-bl.aspx

When the global financial crisis struck roughly a year ago, the blogosphere was ablaze with all sorts of scary predictions of, and commentary regarding, ensuing conflict and wars -- a rerun of the Great Depression leading to world war, as it were. Now, as global economic news brightens and recovery -- surprisingly led by China and emerging markets -- is the talk of the day, it's interesting to look back over the past year and realize how globalization's first truly worldwide recession has had virtually no impact whatsoever on the international security landscape. None of the more than three-dozen ongoing conflicts listed by GlobalSecurity.org can be clearly attributed to the global recession. Indeed, the last new entry (civil conflict between Hamas and Fatah in the Palestine) predates the economic crisis by a year, and three quarters of the chronic struggles began in the last century. Ditto for the 15 low-intensity conflicts listed by Wikipedia (where the latest entry is the Mexican "drug war" begun in 2006). Certainly, the Russia-Georgia conflict last August was specifically timed, but by most accounts the opening ceremony of the Beijing Olympics was the most important external trigger (followed by the U.S. presidential campaign) for that sudden spike in an almost two-decade long struggle between Georgia and its two breakaway regions. Looking over the various databases, then, we see a most familiar picture: the usual mix of civil conflicts, insurgencies, and liberation-themed terrorist movements. Besides the recent Russia-Georgia dust-up, the only two potential state-on-state wars (North v. South Korea, Israel v. Iran) are both tied to one side acquiring a nuclear weapon capacity -- a process wholly unrelated to global economic trends. And with the United States effectively tied down by its two ongoing major interventions (Iraq and Afghanistan-bleeding-into-Pakistan), our involvement elsewhere around the planet has been quite modest, both leading up to and following the onset of the economic crisis: e.g., the usual counter-drug efforts in Latin America, the usual military exercises with allies across Asia, mixing it up with pirates off Somalia's coast). Everywhere else we find serious instability we pretty much let it burn, occasionally pressing the Chinese -- unsuccessfully -- to do something. Our new Africa Command, for example, hasn't led us to anything beyond advising and training local forces. So, to sum up: \* No significant uptick in mass violence or unrest (remember the smattering of urban riots last year in places like Greece, Moldova and Latvia?); \* The usual frequency maintained in civil conflicts (in all the usual places); \* Not a single state-on-state war directly caused (and no great-power-on-great-power crises even triggered); \* No great improvement or disruption in great-power cooperation regarding the emergence of new nuclear powers (despite all that diplomacy); \* A modest scaling back of international policing efforts by the system's acknowledged Leviathan power (inevitable given the strain); and \* No serious efforts by any rising great power to challenge that Leviathan or supplant its role. (The worst things we can cite are Moscow's occasional deployments of strategic assets to the Western hemisphere and its weak efforts to outbid the United States on basing rights in Kyrgyzstan; but the best include China and India stepping up their aid and investments in Afghanistan and Iraq.) Sure, we've finally seen global defense spending surpass the previous world record set in the late 1980s, but even that's likely to wane given the stress on public budgets created by all this unprecedented "stimulus" spending. If anything, the friendly cooperation on such stimulus packaging was the most notable great-power dynamic caused by the crisis. Can we say that the world has suffered a distinct shift to political radicalism as a result of the economic crisis? Indeed, no. The world's major economies remain governed by center-left or center-right political factions that remain decidedly friendly to both markets and trade. In the short run, there were attempts across the board to insulate economies from immediate damage (in effect, as much protectionism as allowed under current trade rules), but there was no great slide into "trade wars." Instead, the World Trade Organization is functioning as it was designed to function, and regional efforts toward free-trade agreements have not slowed. Can we say Islamic radicalism was inflamed by the economic crisis? If it was, that shift was clearly overwhelmed by the Islamic world's growing disenchantment with the brutality displayed by violent extremist groups such as al-Qaida. And looking forward, austere economic times are just as likely to breed connecting evangelicalism as disconnecting fundamentalism. At the end of the day, the economic crisis did not prove to be sufficiently frightening to provoke major economies into establishing global regulatory schemes, even as it has sparked a spirited -- and much needed, as I argued last week -- discussion of the continuing viability of the U.S. dollar as the world's primary reserve currency. Naturally, plenty of experts and pundits have attached great significance to this debate, seeing in it the beginning of "economic warfare" and the like between "fading" America and "rising" China. And yet, in a world of globally integrated production chains and interconnected financial markets, such "diverging interests" hardly constitute signposts for wars up ahead. Frankly, I don't welcome a world in which America's fiscal profligacy goes undisciplined, so bring it on -- please! Add it all up and it's fair to say that this global financial crisis has proven the great resilience of America's post-World War II international liberal trade order. Do I expect to read any analyses along those lines in the blogosphere any time soon? Absolutely not. I expect the fantastic fear-mongering to proceed apace. That's what the Internet is for.

#### Countries turn inward – creates peace

Lloyd deMause, director of The Institute for Psychohistory, “Nuclear War as an Anti-Sexual Group Fantasy” Updated December 18th 2002, http://www.geocities.com/kidhistory/ja/nucsex.htm

The nation "turns inward" during this depressed phase of the cycle. Empirical studies have clearly demonstrated that major economic downswings are accompanied by "introverted" foreign policy moods, characterized by fewer armed expeditions, less interest in foreign affairs in the speeches of leaders, reduced military expenditures, etc. (Klingberg, 1952; Holmes, 1985). Just as depressed people experience little conscious rage--feeling "I deserve to be killed" rather than "I want to kill others" (Fenichel, 1945, p. 393)--interest in military adventures during the depressed phase wanes, arms expeditures decrease and peace treaties multiply.

### Speculation Adv

#### Intermittency collapses the grid

PACE 2012 (Partnership for Affordable Clean Energy, coalition of researchers/consumers/trade groups focused on clean energy, January 4, 2012, “U.S. Must Take Reliability Threats Seriously,” http://goo.gl/yOZ20)

Among domestic policy issues, electricity policy is unique in a number of ways. Consider that the availability of electricity, unlike fuel supplies, is almost exclusively under domestic control. International politics plays virtually no role in the price of power. Consider also that discussions about electricity are essentially conversations about physical systems. When we speak about the future of the American power grid, we are referring to a mechanical structure with real moving parts. Contrast this to more abstract policy references to a “healthcare safety net” or a “social welfare system.” The distinction should be clear. Sadly, too many discussions about American energy policy fail to recognize this reality, pretending instead, for example, that intermittent power sources can provide continuous power or that degrading the nation’s baseload power supply (largely fossil-based today) won’t affect our power system’s ability to function as designed. The latter oversight is foolish and potentially dangerous, realizations with which Europeans, perhaps a decade ahead of the U.S. in terms of carbon policy and renewable experimentation, are beginning to come to grips. A recent report conducted by the Emerging Risk Initiative, an effort by European risk officers, focuses on power reliability risks and reaches some troubling conclusions. The report, entitled Power Blackout Risks, finds that the risk of electrical grid failure is “generally underestimated” and that governments should “establish clear frameworks for the governance of power supply infrastructures.” Although we are at greatest threat from blackouts due to heat waves or major storms, phenomena unlikely to change, the report also finds that the volatility of renewable power supplies also pose a new threat. Especially in places such as Europe with aggressive outlays of renewable power, the intermittency of solar and wind power can make grids more vulnerable to blackouts. “Not only may a scarcity of electricity result in a power blackout,” the report states, “but an oversupply can also lead to grid instabilities as they alter the frequency within the network. Maintaining uninterrupted power supply is not just a matter of convenience. As the report finds, blackouts have huge ripples through economic systems, disrupting supply chains and halting production altogether in major industries. Blackouts can also put lives at risk, presenting immediate danger to vulnerable populations, in contrast to the vague “premature deaths” often cited by official cost-benefit analyses from U.S. government agencies. Records of nearly every major blackout in history bear witness to that unfortunate truth. Europe is beginning to grapple with the consequences of two decades of energy policy that has made electricity more expensive and more unwieldy. As some in the U.S. argue that our nation should chart a similar course, we should heed reports like this and continue to ask whether new policies will make power more or less reliable. Reliability is far too important to overlook.

#### Even if the worst estimates yield enough to have low cost natural gas

Levi 2012 [Michael Levi is the David M. Rubenstein¶ senior fellow for energy and the environment¶ and director of the Program on Energy Security¶ and Climate Change at the Council on Foreign¶ Relations July 2012 Bulletin of the Atomic Scientists “Splitting rock vs. splitting¶ atoms: What shale gas means¶ for nuclear power” Ebsco]

Even in the United States, though, not¶ everyone is bullish about shale gas.¶ Some doubt the figures that have been¶ bandied about regarding the size of US¶ resources. Others question the claimed¶ costs of production. And many, fearing¶ contamination of water supplies and¶ despoiling of local environments,¶ oppose shale gas production outright.¶ Any of these could, in principle, send¶ natural gas prices back up, making¶ nuclear competitive. So could strong¶ demand for shale gas from new markets,¶ like natural gas cars.¶ Estimates of the size of US shale¶ resources are extremely uncertain. In¶ 2009, the Ground Water Protection¶ Council and ALL Consulting stunned¶ observers with the release of their estimate that a whopping 262 trillion cubic¶ feet of natural gas was trapped in US¶ shale (2009). (Annual US consumption¶ is about one-tenth of that, and the shale¶ resources came on top of large conventional ones that were already known.)¶ Two years after that, the Energy¶ DepartmentÕs Energy Information¶ Administration (EIA) estimated a massive 827 trillion cubic feet of natural¶ gas, only to drop it back to 482 trillion¶ cubic feet in early 2012 (Urbina, 2012).¶ Private analysts have produced even¶ more varied guesses. Absent more¶ drilling experience, particularly away¶ from the most attractive deposits, resolving outstanding disagreements will be¶ tough.¶ That is compounded by uncertainty¶ about how much gas a given well will¶ ultimately recover. Shale gas is a young¶ business, but developers expect a well to¶ produce for decades. Long-term production projections thus rely heavily on¶ theory, and there are intense debates¶ over where that theory points. Some¶ expect production to flatten out at low¶ levels but to then continue for many¶ years; others expect it to decline steeply¶ without end. It will likely be many years¶ before this battle is resolved decisively.¶ In the meantime, uncertainty about¶ ultimate well productivity is tantamount¶ to uncertainty about the cost of producing a given amount of fuel.¶ That all leaves a big question: How¶ much do these differences matter? In¶ 2011, facing questions over natural gas¶ resources and production costs, the¶ EIA took a careful look at five cases¶ (EIA, 2011a). Their best guess, based on¶ moderate-sized resources and moderate¶ drilling costs, saw natural gas prices rise¶ to about $6 for a thousand cubic feet¶ by 2025 and to $7 by 2035. Bigger¶ resources (boosted by 50 percent)¶ meant 2025 prices near $5, and better¶ productivity pushed those down evenfurther, to barely more than $4. Of¶ course, when EIA analysts slashed estimated resources in half, projected prices¶ rose, hitting $7 by 2025. The most¶ extreme case, which featured not only¶ smaller resources but doubled drilling¶ costs, saw prices eventually top $8.¶ Because of their speculative nature¶ and the lack of experience with shale¶ gas, these sorts of estimates should be¶ taken with a grain of salt. Nonetheless,¶ most of the numbers have something¶ important in common: They look ugly¶ for nuclear power. Even $7 natural gas,¶ one of the worst-case outcomes, translates into new gas-fired power at about¶ 7 cents a kilowatt-hour. Nuclear would¶ have a tough time beating that, at least¶ for the next decade or so, except with the¶ most optimistic assumptions possible¶ about its cost.

#### New demand construction now

Wisenberg Brin 2012 [Dinah Wisenberg Brin Special to CNBC.com 20 Jun 2012 “Natural Gas Prices Are Down but Capital Spending Surges” http://www.cnbc.com/id/47279973/Natural\_Gas\_Prices\_Are\_Down\_but\_Capital\_Spending\_Surges]

U.S. energy producers’ recent successes in extracting natural gas from shale may have contributed to a price-dampening oversupply for now, but it’s also spurring tens of billions of dollars in capital investments by a reinvigorated industry. ¶ Investments in pipelines and other natural gas infrastructure are expected to enter the trillions of dollars over the next two to three decades, with heavy investment in the near term.¶ “The gas business in North America has suddenly gone through a dramatic revolution,” as new horizontal drilling and hydraulic fracturing technologies have allowed access to tremendous natural gas resources, notes industry consultant James Jensen, president of Jensen Associates of Weston, Mass.¶ The industry needs new pipelines to accommodate the significant gas resources being discovered in places where it previously wasn’t found, he said, noting also that "fracking" is leading producers to oil.¶ Shale gas is also sparking capital expenditures by chemical producers that use natural gas as fuel and feedstock, and by other energy-intensive industries, and may prompt investment in natural gas-fueled power generation as well.¶ The shale discoveries could potentially shift the United States to an export market, as well, as shale gas is expected to reduce reliance on liquefied natural gas imports and pare U.S. electricity prices.¶ “The United States has really changed in the past three or four years its energy profile, and that is why we’re seeing this step up in infrastructure investment,” says John Parry, principal energy financial analyst at IHS Herold, an energy company and transaction research arm of IHS Global Insight [IHS 116.16 -1.54 (-1.31%) ].

#### Electricity prices low

EIA, “SHORT-TERM ENERGY AND WINTER FUELS OUTLOOK,” U.S. Energy Information Administration, October 10, 2012, <http://www.eia.gov/forecasts/steo/report/electricity.cfm>, accessed 10-25-2012.

During this past winter, U.S. heating degree days during the fourth quarter of 2011 and the first quarter of 2012 totaled 18 percent below the 30-year normal. Temperatures this winter are expected to be colder than last winter. In particular, projected heating degree days in the southern states, where a majority of homes heat with electricity, are 27 percent higher than last winter. As a result of the colder weather, EIA projects retail sales of electricity to the residential sector this winter will average 6.2 percent more than retail sales last winter. U.S. Electricity Generation¶ Natural gas prices have risen steadily since this past spring. In September, the Henry Hub price averaged $2.85 per million Btu, which was 46 percent higher than the average in April. With higher natural gas prices EIA expects natural gas to lose some of its recent gains in electricity generation market share. The share of total generation fueled by natural gas in the fourth quarter of 2012 is projected to average 27.8 percent compared with 25.4 percent during the same period last year. By the beginning of 2013, higher natural gas prices should contribute to year-over-year declines in natural gas's share of total generation. EIA expects natural gas to fuel 25.8 percent of generation during the first quarter of 2013, which is 2.8 percentage points lower than during the first quarter of 2012. U.S. Electricity Retail Prices¶ EIA expects the nominal U.S. residential electricity price will rise by 0.4 percent during 2012 to an average of 11.84 cents per kilowatthour. During 2013, U.S. residential retail electricity prices increase 1.3 percent over the average 2012 price. When measured in real terms, the U.S. residential electricity price declines by 1.7 percent in 2012 and by 0.3 percent in 2013.

#### Solar jacks up electricity prices

Baker 2010

Maggie Koerth-Baker, “Shining Light on the Cost of Solar Energy,” National Geographic, November 5, 2010, <http://news.nationalgeographic.com/news/energy/2010/11/101105-cost-of-solar-energy/>, accessed 11-9-2012.

That said, there’s wide agreement that solar electricity is pricey. The U.S. DOE’s Energy Information Administration (EIA) estimates that it’s the most expensive form of electricity among current technologies for new electricity generation, about $396 per megawatthour for PV. That’s more than double EIA’s estimate of the total system levelized cost of wind, and almost four times the cost of conventional coal.¶ And that analysis looks at large-scale solar, the kind usually owned by utility companies. Small installations on home rooftops are even more expensive, because they don’t take advantage of buying—or installing—in bulk. To be fair, over 20 years, a homeowner will earn back between 76 percent and 109 percent of the system’s cost in the form of lower electricity bills, because the fuel that powers solar energy is free, according to a 2009 report on financing solar installations in the residential sector by the U.S. DOE National Renewable Energy Laboratory .¶ With such a broad range in the potential rate of return, it isn’t always easy to find a bank that will make that loan, says Ed Regan, assistant general manager of strategic planning at Gainesville Regional Utilities (GRU) in Gainesville, Florida. GRU helped Gainesville residents get around that problem by implementing a feed-in tariff, a system where a utility offers solar panel owners a 20-year contract to buy solar electricity, guaranteeing the owners will make a set profit on their decision to go solar. There are other alternative financing options—such as letting the utility or a third party buy and own the solar system, while the homeowner hosts it on the roof—but these options aren’t available everywhere.¶ (Related: “Beating the White House to the Solar Punch”)¶ (Related: “Renewable Energy: Ontario’s New Gold Rush”)¶ It’s All in the Material¶ So why is solar so expensive?¶ Converting light into electricity with no moving parts is a profoundly different enterprise than turning a turbine to make power—the technology that is at work in coal, natural gas, nuclear, hydropower plants and, most visibly to the public, at wind farms.¶ “Wind power is the same technology as it’s been for 1,000 years,” said Tom Meyer, a professor of chemistry at the University of North Carolina at Chapel Hill . “There’s nothing to invent. It just needs to be improved.” The makers of wind turbines have made huge cost reductions in recent decades with relatively small tweaks to an otherwise familiar system.¶ That’s not yet true for solar, experts say. Most solar cells are made from silicon—the same semiconductor material that is at the heart of computers. The cells are expensive to produce because it takes a great deal of energy to purify the silicon. And, while the computer industry has made enormous strides in making cheaper silicon devices, those advancements don’t translate to the solar industry.

#### No resource wars

Idean Salehyan (Professor of Political Science at the University of North Texas) May 2008 “From Climate Change to Conflict? No Consensus Yet\*” Journal of Peace Research, vol. 45, no. 3 http://emergingsustainability.org/files/resolver%20climate%20change%20and%20conflict.pdf

First, the deterministic view has poor predictive power as to where and when conflicts will break out. For every potential example of an environmental catastrophe or resource shortfall that leads to violence, there are many more counter-examples in which conflict never occurs. But popular accounts typically do not look at the dogs that do not bark. Darfur is frequently cited as a case where desertification led to food scarcity, water scarcity, and famine, in turn leading to civil war and ethnic cleansing.5 Yet, food scarcity and hunger are problems endemic to many countries – particularly in sub-Saharan Africa – but similar problems elsewhere have not led to large-scale violence. According to the Food and Agriculture Organization of the United Nations, food shortages and malnutrition affect more than a third of the population in Malawi, Zambia, the Comoros, North Korea, and Tanzania,6 although none of these countries have experienced fullblown civil war and state failure. Hurricanes, coastal flooding, and droughts – which are all likely to intensify as the climate warms – are frequent occurrences which rarely lead to violence. The Asian Tsunami of 2004, although caused by an oceanic earthquake, led to severe loss of life and property, flooding, population displacement, and resource scarcity, but it did not trigger new wars in Southeast Asia. Large-scale migration has the potential to provoke conflict in receiving areas (see Reuveny, 2007; Salehyan & Gleditsch, 2006), yet most migration flows do not lead to conflict, and, in this regard, social integration and citizenship policies are particularly important (Gleditsch, Nordås & Salehyan, 2007). In short, resource scarcity, natural disasters, and long-term climatic shifts are ubiquitous, while armed conflict is rare; therefore, environmental conditions, by themselves, cannot predict violent outbreaks. Second, even if local skirmishes over access to resources arise, these do not always escalate to open warfare

and state collapse. While interpersonal violence is more or less common and may intensify under resource pressures, sustained armed conflict on a massive scale is difficult to conduct. Meier, Bond & Bond (2007) show that, under certain circumstances, environmental conditions have led to cattle raiding among pastoralists in East Africa, but these conflicts rarely escalate to sustained violence. Martin (2005) presents evidence from Ethiopia that, while a large refugee influx and population pressures led to localized conflict over natural resources, effective resource management regimes were able to ameliorate these tensions. Both of these studies emphasize the role of local dispute-resolution regimes and institutions – not just the response of central governments – in preventing resource conflicts from spinning out of control. Martin’s analysis also points to the importance of international organizations, notably the UN High Commissioner for Refugees, in implementing effective policies governing refugee camps. Therefore, local hostilities need not escalate to serious armed conflict and can be managed if there is the political will to do so. Third, states often bear responsibility for environmental degradation and resource shortfalls, either through their own projects and initiatives or through neglect of the environment. Clearly, climate change itself is an exogenous stressor beyond the control of individual governments. However, government policies and neglect can compound the effects of climate change. Nobel Prizewinning economist Amartya Sen finds that, even in the face of acute environmental scarcities, countries with democratic institutions and press freedoms work to prevent famine because such states are accountable to their citizens (Sen, 1999). Others have similarly shown a strong relationship between democracy and protection of the environment (Li & Reuveny, 2006). Faced with global warming, some states will take the necessary steps to conserve water and land, redistribute resources to those who need them most, and develop disaster-warning and -response systems. Others will do little to respond to this threat. While a state’s level of income and technological capacity are certainly important, democracy – or, more precisely, the accountability of political leaders to their publics – is likely to be a critical determinant of how states respond to the challenge. Fourth, violent conflict is an inefficient and sub-optimal reaction to changes in the environment and resource scarcities. As environmental conditions change, several possible responses are available, although many journalists and policymakers have focused on the potential for warfare. Individuals can migrate internally or across borders, or they can invest in technological improvements, develop conservation strategies, and shift to less climate-sensitive livelihoods, among other adaptation mechanisms. Engaging in armed rebellion is quite costly and risky and requires large-scale collective action. Individuals and households are more likely to engage in simpler, personal, or smallscale coping strategies. Thus, organized violence is inefficient at the individual level. But, more importantly, armed violence against the state is used as a means to gain leverage over governments so as to gain some form of accommodation, namely, the redistribution of economic resources and political power. Organized armed violence rarely (if ever) arises spontaneously but is usually pursued when people perceive their government to be unwilling to listen to peaceful petitions. As mentioned above, rebellion does not distribute resources by itself, and protracted civil wars can have devastating effects on the economy and the natural environment, leaving fewer resources to bargain over. Thus, organized violence is inefficient at the collective level. Responsive, accountable political leaders – at all levels of government – are more likely to listen to citizen demands for greater access to resources and the means to secure their livelihoods. Political sensitivity to peaceful action can immunize states from armed insurrection.

#### No conflict over resources – your literature base overfocuses on instances of conflict – for every example to prove resource wars exist there are several examples that disprove it. Their research is based on dated data – cooperation is more likely

Simon Dalby (Dept. Of Geography, Carleton University) 2006 "Security and environment linkages revisited" in Globalisation and Environmental Challenges: Reconceptualising Security in the 21st Century, www.ntu.edu.sg/idss/publications/SSIS/SSIS001.pdf)

In parallel with the focus on human security as a necessity in the face of both natural and artificial forms of vulnerability, recent literature has emphasised the opportunities that environmental management presents for political cooperation between states and other political actors, on both largescale infrastructure projects as well as more traditional matters of wildlife and new concerns with biodiversity preservation (Matthew/Halle/Switzer 2002). Simultaneously, the discussion on water wars, and in particular the key finding the shared resources frequently stimulate cooperation rather than conflict, shifted focus from conflict to the possibilities of environmental action as a mode of peacemaking. Both at the international level in terms of environmental diplomacy and institution building, there is considerable evidence of cooperative action on the part of many states (Conca/Dabelko 2002). Case studies from many parts of the world suggest that cooperation and diplomatic arrangements can facilitate peaceful responses to the environmental difficulties in contrast to the pessimism of the 1990’s where the focus was on the potential for conflicts. One recent example of the attempts to resolve difficulties in the case of Lake Victoria suggests a dramatic alternative to the resource war scenarios. The need to curtail over-fishing in the lake and the importance of remediation has encouraged cooperation; scarcities leading to conflict arguments have not been common in the region, and they have not influenced policy prescriptions (Canter/Ndegwa 2002). Many conflicts over the allocations of water use rights continue around the world but most of them are within states and international disputes simply do not have a history of leading to wars.

# 2NC

# Topicality

### 2NC Extra T Arg

#### The portion of the plan that mandates just compensation is extra topical- Financial incentives excludes regulations with incentive effects

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, thedefinition 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.

#### Additional internal link to our limits DA- also causes bidirectionality because it justifies the ban natural gas aff as an incentive to produce solar and wind

### 2NC Limits Overview

#### Their interpretation is a limits disaster- anything can be a financial incentive- the number of ways to give a grant or loan is explosionary- the only limit the resolution gives us for financial incentives is the modifier ‘for energy production’

#### Limits outweigh –

#### A. Most logical—the significance of one-of-many issues is minimal. Constraints inherently increase meaning.

#### B. It’s a precursor—education is inevitable, unfocused education isn’t productive. Limits determine the direction and productivity of learning.

#### Small schools- Huge topic with constantly developing literature magnifies resource disparities- Big programs can have a new aff every other round- No topic generics sufficient to restore balance

#### Key to fairness- essential to ensure that debates at the end of the year have meaningful clash over the mechanism

#### Literally doubles the educational benefit

**Arrington 2009** (Rebecca, UVA Today, “Study Finds That Students Benefit From Depth, Rather Than Breadth, in High School Science Courses” March 4)

A recent study reports that high school students who study fewer science topics, but study them in greater depth, have an advantage in college science classes over their peers who study more topics and spend less time on each. Robert Tai, associate professor at the University of Virginia's Curry School of Education, worked with Marc S. Schwartz of the University of Texas at Arlington and Philip M. Sadler and Gerhard Sonnert of the Harvard-Smithsonian Center for Astrophysics to conduct the study and produce the report. "Depth Versus Breadth: How Content Coverage in High School Courses Relates to Later Success in College Science Coursework" relates the amount of content covered on a particular topic in high school classes with students' performance in college-level science classes. The study will appear in the July 2009 print edition of Science Education and is currently available as an online pre-print from the journal. "As a former high school teacher, I always worried about whether it was better to teach less in greater depth or more with no real depth. This study offers evidence that teaching fewer topics in greater depth is a better way to prepare students for success in college science," Tai said. "These results are based on the performance of thousands of college science students from across the United States." The 8,310 students in the study were enrolled in introductory biology, chemistry or physics in randomly selected four-year colleges and universities. Those who spent one month or more studying one major topic in-depth in high school earned higher grades in college science than their peers who studied more topics in the same period of time. The study revealed that students in courses that focused on mastering a particular topic were impacted twice as much as those in courses that touched on every major topic

#### Turns their offense—limits are vital to creativity and innovation

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.

### A2: PTC Limits out Nuke Affs

There are still tons of restrictions affs on the nuclear side- impossibility of placing restrictions on energy production on that half of the topic means that we should limit the incentives part of the topic more

#### You can make the Nuclear PTC escalate to offset construction costs

NEI, October 2009, Nuclear Energy Institute, “Policies That Support New Nuclear Power Plant Development,” <http://www.nei.org/resourcesandstats/documentlibrary/newplants/factsheet/policiessupportnewplantdevelopment/>

### The production tax credit (PTC) for new nuclear generation (section 1306 of the Energy Policy Act of 2005) allows 6,000 megawatts of new nuclear capacity to earn $18 per megawatt-hour for the first eight years of operation. The maximum tax credit for any one plant is capped at $125 million per year. In 2005, $18 per megawatt-hour was comparable to the PTC for renewable resources. However, unlike the renewable PTC, which increases annually with inflation, the nuclear PTC does not escalate. In 2006, the Internal Revenue Service published guidelines for implementing the nuclear PTC program. For a facility to be eligible for credits: The construction and operating license application must be submitted to the U.S. Nuclear Regulatory Commission by Dec. 31, 2008. The plant must be under construction by January 1, 2014. The plant must be operating by January 1, 2021. The 6,000 megawatts of available credits will be divided among eligible facilities on a pro rata basis according to the facilities' nameplate capacities. Although the PTC reduces the cost of the power generated by these new plants once they are up and running, it does little to offset the construction and commissioning risk.

### Gov Defs Bad

#### Government defs underlimit

Eric Kupferbreg (University of Kentucky, Senior Assistant Dean, Academic & Faculty Affairs at Northeastern University, College of Professional Studies Associate Director, Trust Initiative at Harvard School of Public Health) 1987 “Limits - The Essence of Topicality” http://groups.wfu.edu/debate/MiscSites/DRGArticles/Kupferberg1987LatAmer.htm

Often, field contextual definitions are too broad or too narrow for debate purposes. Definitions derived from the agricultural sector necessarily incorporated financial and bureaucratic factors which are less relevant in considering a 'should' proposition. Often subject experts' definitions reflected administrative or political motives to expand or limit the relevant jurisdiction of certain actors. Moreover, field context is an insufficient criteria for choosing between competing definitions. A particularly broad field might have several subsets that invite restrictive and even exclusive definitions. (e.g., What is considered 'long-term' for the swine farmer might be significantly different than for the grain farmer.) Why would debaters accept definitions that are inappropriate for debate? If we admit that debate is a unique context, then additional considerations enter into our definitional analysis.

# Counterplan

### 2NC A2: Certainty Key

#### The aff is more uncertain- by not forcing industries to be cost competitive they leave the industry fearing shifting political winds- causes market boom and bust

JENKINS ’12 - Director of Energy And Climate Policy Breakthrough Institute (Jenkins, Jesse D. "TESTIMONY OF JESSE D. JENKINS DIRECTOR OF ENERGY AND CLIMATE POLICY BREAKTHROUGH INSTITUTE BEFORE THE COMMITTEE ON ENERGY AND NATURAL RESOURCES UNITED STATES SENATE." May 22, 2012. http://www.energy.senate.gov/public/index.cfm/files/serve?File\_id=31b79a1a-83a0-4ae6-8c80-30fe754ad0ea-http://www.energy.senate.gov/public/index.cfm/files/serve?File\_id=31b79a1a-83a0-4ae6-8c80-30fe754ad0ea)

At the same time, the reality is that until technological innovation and cost declines can secure ¶ independence from ongoing subsidy, advanced energy technologies will remain continually ¶ imperiled by the threat of subsidy expiration and political uncertainty. Meanwhile, public tolerance ¶ for significant energy subsidies or the internalization of higher prices for energy is limited. If ¶ nascent energy technologies scale up without corresponding declines in price, this limited tolerance ¶ will eventually be expended, leading to another market bust. This means that the simple, perpetual ¶ extension of today’s advanced energy subsidies and policies, with its passive approach to ¶ innovation, does not offer a sustainable path beyond a cycle of clean tech boom and bust.

#### Plan links more – the CP establishes a more predictable framework

**Trabish, 12** – edits NewEnergy News (Herman, “TODAY’S STUDY: THE BACKING NEW ENERGY IS GETTING AND THE BACKING IT NEEDS” 5/7, <http://newenergynews.blogspot.com/2012/05/todays-study-backing-new-energy-is.html>)

g Cost competitiveness is achievable, but until technological innovation and cost declines can secure independence from ongoing subsidy, clean tech segments will remain continually imperiled by the threat of policy expiration and political uncertainty. Continual improvement in price and performance is thus the only real pathway beyond the cycle of clean tech boom and bust.

### 2NC Perm Do Both

Makes negative sense- investors would be morons to accept the offer of the CP before the guaranteed incentives of the Plan- provides no incentive to create new innovations to make technology more cost competitive

#### Causes technology lock-in- prevents new innovations after the aff technology becomes cost competitive- ensures we are behind the curve on the NEXT innovation

**Jenkins, 12** – Director of Energy and Climate Policy at the Breakthrough Institute (Jesse, Congressional Testimony before the Senate Committee on Energy and Natural Resources, 5/22, <http://www.energy.senate.gov/public/index.cfm/files/serve?File_id=31b79a1a-83a0-4ae6-8c80-30fe754ad0ea>)

Whatever form it takes, a new suite of advanced energy deployment policies must simultaneously drive market demand and continual innovation.¶ By and large, today’s energy subsidies do not do enough to support America’s innovators, and they have not yet succeeded in driving down the costs of advanced energy technologies far enough to compete with conventional fuels. For example:¶ • Many of today’s clean energy subsidies are focused primarily on supporting the deployment of existing energy technologies at current prices, and most provide no clear pathway to subsidy independence. The federal renewable electricity PTC, for example, has provided the same level of subsidy to wind power since initial enactment in 1992. Subsidy levels increase each year at the rate of inflation, keeping per MWh subsidy levels constant in real dollar terms and providing no clear incentive for continual cost declines or pathway to eventual subsidy independence.¶ • If not designed with care, deployment policies can also lock out more promising but higher risk technologies from markets, slowing their development. This is a challenge in particular for the renewable portfolio standard and clean energy standard policies given serious consideration by this Committee. These policies typically encourage deployment of the lowest-cost qualifying energy technology available—generally wind power or biomass, or in the case of a proposed CES, natural gas-fired plants. Yet if designed in this manner, RPS or CES policies may do little to drive down the price of other advanced energy technologies, such as solar or advanced nuclear reactor designs, that may have higher costs now but hold the potential to become much cheaper in the long-run.¶ • Intermittent and haphazard policy support can also wreak havoc with the business confidence necessary for the long-term investments required to develop new and improved products. The PTC for wind power, for example, was first enacted in 1992, but has since expired three times, and has been renewed a total of seven times, often with less than a month to spare before pending expiration. Other clean tech subsidies, including key tax credits for solar, biofuels, energy efficient products, and other segments have experienced similarly erratic expirations. The market effects are chilling, and many private firms are forced to focus principally on ramping-up production for subsidized markets while they last, rather than pioneering next-generation designs and manufacturing processes for the long-term. The intermittent nature of many advanced energy support policies thus slows the pace of innovation in these sectors and actually prolongs the amount of time these sectors remain reliant on public subsidy.¶ The United States can do better than this. Deployment subsidies and policies should be reformed and designed from the beginning to better support innovative U.S. firms and reward companies for developing, producing, and improving advanced technologies that can ultimately compete on price with both fossil fuels and international competitors alike. Each dollar of federal support today should be optimized to move maturing advanced energy technology sectors towards eventual subsidy independence as soon as possible.

### 2NC Net Benefit Turns Case

#### Our link is faster than the plan – The market gets built up way too fast

JENKINS ET AL ’12 - directs the Energy and Climate Program at the Breakthrough Institute (Jenkins, Jesse. Mark Muro. “BEYOND BOOM & BUST”. April, 2012. http://assets.nationaljournal.com/Beyond%20Boom%20and%20Bust\_Embargoed\_4\_17.pdf)

This is not the first time booming clean tech markets in America have been on the brink of a bust. US markets for clean tech segments from wind, nuclear, and solar power to electric vehicles and alternative fuels have each surged and declined in the past. While a drawdown of federal subsidies is most often the immediate trigger of clean tech market turmoil, the root cause remains the same each time: the higher cost and risk of US clean tech products relative to either mature fossil energy technologies or lower-cost international competitors, which make US clean tech sectors dependent on subsidy and policy support. New industry sectors are often volatile, as innovative technology firms must challenge both established incumbents and competing upstarts. Clean tech sectors are no exception. Yet in energy, unlike biotechnology or information technology, price is king. Like steel or copper, energy is a commodity, principally valued not for its own qualities but for the services and products derived from it. As such, while new drugs, software, or consumer electronics command a price premium from customers by offering new value-added features and hence command a premium price from customers, new energy technologies must routinely compete on price alone, even if they offer other long-term benefits. 74 It would be a difficult feat for any nascent technology to enter a commodity market and compete immediately on cost, but clean tech sectors face a particularly challenging rival: well-entrenched fossil fuel incumbents that have had more than a century to develop their supply chains and make incremental innovations to achieve high levels of efficiency. These mature fossil energy industries have long enjoyed sizable, stable flows of subsidy support as well as a regulatory environment and established infrastructure both geared towards fossil fuel models of energy procurement, delivery, and use. 75 Most clean tech segments, by contrast, are relatively young, are still developing supply chains, and are steadily improving manufacturing techniques, product designs, and efficiencies. Higher perceived technology risks make financing the commercialization and scale-up of new clean technologies particularly challenging. 76 Imbalances between supply and demand can quickly develop in immature clean tech supply chains, causing wild swings in prices and profit margins. 77 New business models and novel technologies often require market or regulatory reforms, new enabling infrastructure, or other changes to fully scale-up.

#### Government guarantees creates risky market structures- causes instability and turns case

Gerdin ’11 (Erik Gerding, Associate Professor at University of Colorado Law School. His research interests include securities, banking law, financial regulation generally, and corporate governance, “The Inherent, Ineluctable Instability of Financial Institution Regulation”, <http://www.theconglomerate.org/2011/09/the-inherent-ineluctable-instability-of-financial-institution-regulation.html>, September 12, 2011)

Here is my second contribution to the Faculty Lounge Online Forum on the legislative and regulatory process of financial reform. Check out the posts by the other contributors including, Kim Krawiec (Duke), Christie Ford (Univ. British Columbia), Brett McDonnell (Minnesota), Saule Omarova (North Carolina), and Dan Schwarz (Minnesota). In my last post, I concluded that the presence of government subsidies – particularly guarantees explicit (deposit insurance) and implicit (Too-Big-To-Fail) – makes the political economy of financial institution regulation different from other areas of the regulatory state. In this post, I argue that these government subsidies and moreover, the underlying reason for government subsidies, contributes to the inherent instability of financial institution regulation. The presence of government guarantees – explicit or implicit – creates strong incentives for financial firms to externalize the cost of their risk taking onto taxpayers. But there is more to government guarantees than moral hazard. Consider the following: Market distortion: When the government subsidizes some financial firms but not others, it distorts the market. A lower cost of capital allows the subsidized firms to undercut their competition. This can drive competitors either out of business or, if risk is being mispriced because of an asset boom, into riskier market segments (a phenomena I explored in a symposium piece). Cheaper debt and leverage: Government guarantees also. make debt cheaper than equity This supercharges the incentives of financial firms to increase leverage. Higher leverage of financial institutions, in turn, works to increase the effective supply of money. More money can fuel asset price bubbles and mask the mispricing of risk (phenomena explored by Margaret Blair in this paper, as well as by me in a forthcoming symposium piece in the Berkeley Business Law Journal.) Cheaper debt and regulatory capital arbitrage: Cheaper debt also supercharges financial firm incentives to game regulatory capital requirements (something I am writing about in the context of the shadow banking system. See also Jones; Acharya & Schnabl; Acharya & Richardson. Bailouts and correlated risk: Governments face pressure to bail out firms when their risk taking is highly correlated (because multiple firms will fail at the same time). On the flip side, this creates a strong incentive for financial firms to take on correlated risk. (See, e.g., Acharya et al.). Correlated risk taking reinforces the kind of herding that behavioral finance scholars have analyzed in the context of asset price bubbles. So feedback loops abound. What to do, then, about government subsidies? “Stop us before we bail out again” One approach is to erect barriers to the government providing subsidies and bailouts. Dodd-Frank is chock full o’ provisions that aim to do just this. But legal scholars need to give policymakers a dose of reality about the ability of law to hardwire “no bailouts, no subsidies.” I just came back from a conference last week in which a number of economists kept saying that this hardwiring was exactly what law needed to contribute to financial reform. Here is how some of the law professors in the room (including your friend and mine Anna Gelpern) responded: 1. Legal rules are by nature incomplete and, under pressure, firms and regulators will seek ways around rules. 2. It ain’t so easy for a sovereign to bind itself. In the end, what is the remedy and who will enforce it? 3. There is nothing to stop Congress from amending the law. Legislatures can’t entrench laws against amendments by future legislatures (although the government must honor contractual obligations – for a discussion of these issues, see U.S. v. Winstar) True, Dodd-Frank’s prohibitions on bailouts and governments are not just pieces of paper. Law does constrain government behavior to a degree and can promote political accountability. However, we should not expect “law” to work like a wind-up toy that is self-executing without worrying about issues of interpretation, compliance, incentives, and the norms of government actors. I restrained myself at the conference from delivering a little legal koan: “the law will bind government officials, if they believe it binds them.” As an aside: it strikes me that the legal academy has to do a much better job of educating economists, policy makers and the public about what is “law” and how it operates. We have to do this in an accessible manner and without undermining important norms of legal compliance. Financial reform proposals are replete with calls for more “automatic regulations” – whether to counter capture or political pressure to spike the economic punch when the party gets startin’. (For example, economists have proposed the very sensible policy of counter-cyclical capital buffers) But fetishizing automatic regulations can pervert financial regulation. Over-reliance on automatic regulation: Ignores the fact that regulators and lawmakers must interpret laws; and Discounts the likelihood or regulatory arbitrage or regulatory evasion. In short, we need to have a much richer discussion of what the “law in action” means. Letting it Burn: Confusing Bailouts with Other Externalities of Financial Institution Risk-Taking What if restrictions on bailouts and government guarantees work too well? There is a rationale for government interventions like deposit insurance, lender-of-last resort, and bailouts. They are not just about “capture.” Financial institution failure can impose significant negative externalities (which is a fairly antiseptic description of the social costs of financial crises). Counterparty and market discipline don’t force firms to internalize all of these externalities. I respect the intellectual consistency and fervor of those who believe that bailouts and government interventions are the root of all financial regulatory problems. But I wouldn’t trust them in any position of responsibility. Deposit insurance and bailouts aren’t the only ways governments distort markets when they act to avoid crises. Lender-of-last resort actions and even interest rates changes can create a type of moral hazard (see “Put, Greenspan”). It is a lot harder for central banks to calibrate liquidity responses to market seizures than armchair critics think. Countering Subsidies So if some government subsidization of the financial firms is inevitable, it is critical that the government counter these subsidies -- whether by limiting firm risk-taking or charging firms for the subsidy. Absent attempts to counter subsidies, we are right back where this post started – moral hazard, distortion, cheap debt --> leverage and capital arbitrage.

#### If the plan succeeds- it just creates a bubble in the green economy by propping up the industry- turns case

Tracinski ’12 (Robert Tracinski, Robert Tracinski writes daily commentary at TIADaily.com, “The Global Warming Bubble”, <http://www.realclearmarkets.com/articles/2012/03/06/the_global_warming_bubble_99552.html>, March 6, 2012)

When the federal government bailed out General Motors, you may remember that we were told the government would transform GM by moving it away from manufacturing big, gas-guzzling trucks and SUVs (you know, the vehicles that were actually making a profit) and instead make sure that GM rode the real wave of the future: electric cars. Well, here's where the wave of the future has taken us: GM just shut down the assembly line of its electric car, the Chevy Volt, for five weeks because demand for the Volt is making the Edsel look like a roaring success. Observers are divided over whether the Volt has flopped because of its limited all-electric range, its high price tag (despite massive government subsidies), or the fact that its battery might have a tendency to catch on fire. The Volt is just the latest commercial failure for "green" technology. We are in the middle of what you might call a global warming bubble. It is a failure of the global warming theory itself and of the credibility of its advocates, but also a failure of the various "green energy" schemes proposed as a substitute for fossil fuels. Take the sleek Tesla electric roadster, brought to you with about half a billion dollars in government-backed loans, which turns into an immovable "brick" if you run down its battery too far, say, by taking a long drive and parking it for a while. The failure of the solar panel maker Solyndra has been followed by the bankruptcies of a variety of other government-subsidized green energy firms, such as Beacon Energy, which makes an energy storage device needed to smooth out the energy production of erratic "renewable" sources, and battery maker Ener1. But maybe we're just not subsidizing green power enough, because surely you've heard--probably from Tom Friedman--that China is beating us to the future with its support for green energy. But China's solar energy firms are also heading into a slump and laying off workers. Part of the reason for the solar slump in China is that they were counting on generous subsidies for their product from the West, particularly Europe. In effect, the Chinese were manufacturing solar panels in order to cash in on subsidies from Western taxpayers. But now the subsidies are drying up. That leads us to the most interesting of these stories. Germany is phasing out its solar subsidies, but the economically revealing part is why they are eliminating the subsidies. As Bjorn Lomborg explains: "Subsidizing green technology is affordable only if it is done in tiny, tokenistic amounts. Using the government's generous subsidies, Germans installed 7.5 gigawatts of photovoltaic capacity last year, more than double what the government had deemed 'acceptable.' It is estimated that this increase alone will lead to a $260 hike in the average consumer's annual power bill." At the end of last year, I wrote (in my own newsletter) about the marginal economics of the welfare state. Many welfare-state policies seem to work so long as they are implemented on a small scale but fail when they are expanded to cover a larger portion of the population. The Medicare program, for example, takes advantage of the fact that it can dictate lower prices for medical services, because it only needs to pay the marginal costs (the relatively low cost of treating one additional patient in an existing hospital), while non-Medicare patients are billed at higher rates to cover big capital expenditures (the cost of building the hospital in the first place). But if the government starts paying for all health care, it suddenly has to pay a lot more to fund those capital expenditures. Something similar applies to green technology. It can be sustained only as a token or showpiece designed to distract attention from all of the coal, natural gas, and nuclear power stations that actually keep the lights on. The Chevy Volt, for example, is openly billed by GM as a "loss leader": they're losing money on it for the sake of all of the good "green" PR they hope to get. But the moment you try to use these technologies to generate a noticeable portion of a nation's electricity, the costs rise to ruinous levels. Thus, as Lomborg explains: "Solar power is at least four times more costly than energy produced by fossil fuels. It also has the distinct disadvantage of not working at night, when much electricity is consumed. "In the words of the German Association of Physicists, 'solar energy cannot replace any additional power plants.' On short, overcast winter days, Germany's 1.1 million solar-power systems can generate no electricity at all. The country is then forced to import considerable amounts of electricity from nuclear power plants in France and the Czech Republic." The same applies to wind energy, too, for the same reason. Just as the sun doesn't shine consistently every day, so the wind does not blow consistently. The natural fluctuation of wind power means that every megawatt of wind power requires an equal amount of conventional, fossil-fuel-powered generation to prevent power dips on the electric grid. Which is to say that solar panels and windmills are really just ornaments. They are monuments to greener-than-thou environmental vanity. That these forms of renewable energy are capable of generating only minimal amounts of power is no accident. Ten years ago, I published an article by Jack Wakeland which examined the growth of "renewable energy" and concluded that every time an "alternative" power source grew large enough to produce energy on a truly industrial scale, environmentalists turned against it, as they have done with hydro-electric dams, geothermal plants, and even wind farms. So the fact that green energy is capable of generating only a small fraction of the power needed to fuel an industrial civilization is no accident. In effect, the inability to generate industrial-scale power is what makes green energy green. But what that means is that green energy is doomed as an economic proposition. It has all of the hallmarks of an economic bubble. As with the Internet, housing, and higher-education bubbles, green energy is fiercely believed in, not just as an investment but as a superior lifestyle and a positive social good. And as with housing and education, it is propped up by government tax breaks, loan guarantees, and massive subsidies, all of which support a growing edifice of economically unproductive activity. But this artificial stimulation eventually expands the industry beyond the point where it can be sustained, either economically or politically, and the bubble bursts.

#### Plan attracts the worst type of investors- they only look to make a quick buck not create sustainable industries

**Boskin, 12** - professor of economics at Stanford and a senior fellow at the Hoover Institution (Michael, Wall Street Journal, 2/15, “Washington's Knack for Picking Losers”, <http://online.wsj.com/article/SB10001424052970204883304577221630318169656.html>)

Like the mythical monster Hydra—who grew two heads every time Hercules cut one off—President Obama, in both his State of the Union address and his new budget, has defiantly doubled down on his brand of industrial policy, the usually ill-advised attempt by governments to promote particular industries, companies and technologies at the expense of broad, evenhanded competition.¶ Despite his record of picking losers—witness the failed "clean energy" projects Solyndra, Ener1 and Beacon Power—Mr. Obama appears determined to continue pushing his brew of federal spending, regulations, mandates, special waivers, loan guarantees, subsidies and tax breaks for companies he deems worthy.¶ Favoring key constituencies with taxpayer money appeals to politicians, who can claim to be helping the overall economy, but it usually does far more harm than good. It crowds out valuable competing investment efforts financed by private investors, and it warps decisions by bureaucratic diktats susceptible to political cronyism. Former Obama adviser Larry Summers echoed most economists' view when he warned the administration against federal loan guarantees to Solyndra, writing in a 2009 email that "the government is a crappy venture capitalist."¶ Markets function well when the returns are received and the risks borne by private owners. There are, of course, exceptions: Governments have a responsibility to fund defense R&D and other forms of pre-competitive, generic R&D—e.g., basic science and technology from nanoscience to batteries—but only when they pass rigorous cost-benefit tests and maintain a level playing field among alternative commercial applications.¶ For example, the computer-linking technology that created the Internet was funded by the Defense Department for defense purposes. But, like numerous defense technologies, it wound up with commercially valuable civilian applications. Yet it would be foolish for the government to subsidize a particular search engine or social-networking platform.¶ The previous peak for U.S. industrial policy was in the 1970s and 1980s, when many Democrats wanted to emulate the then-growing Japanese economy by managing trade and directing specific technology and investment outcomes. Japanese subsidies mostly went to old industries like agriculture, mining and heavy manufacturing. We now know that this misallocation of capital was one of the main reasons for Japan's stagnation over the past two decades.¶ Industrial-policy fever waned after the 1980s but never died. President George W. Bush expanded ethanol mandates and pushed hydrogen cars. Hydrogen's use for transportation must still overcome combustibility concerns, or we'll be driving mini-Hindenburgs. The Bush and Obama administrations bet big on ethanol and other biofuels, providing subsidies that distorted the global market for corn. The federal government was forced to drop its cellulosic ethanol quota by 97% last year because of a lack of viable biorefineries—and the quota still wasn't met.¶ Even under optimistic projections, heavily subsidized wind and solar would each amount to a tiny fraction of global energy by 2030 and thus cannot be the main answer to energy-security or environmental problems. The short-run focus of most Department of Energy funding misses the main strategic imperative: We need alternatives that can scale to significance long-term without subsidies, and we need a lot more North American oil and gas in the meantime.¶ Mr. Obama is spending immense sums for subsidies to particular industries and technologies, almost $40 billion for clean-energy programs alone (some, appropriately, for pre-competitive generic technology.) Yet a large number of prominent venture-capital funds are devoted to alternative-energy providers. They should be competing with each other and with the technologies they seek to replace—not for government handouts.

### 2NC CP solvency

#### Increasing incentives alone leads to technological stagnation – conditioning incentives on performance will drive innovation

**Stepp, 12 -** Senior Policy Analyst with the Information Technology and Innovation Foundation (ITIF) specializing in climate change and clean energy policy (Matthew, “Clean Tech Headed for Stagnation,”, 5/14, <http://theenergycollective.com/node/84873>)

But even if much of this funding continues, the nascent clean tech industry is on a potential path of stagnation. In absence of long-term, significantly larger subsidies (which are politically unlikely), government support for clean energy R&D are central to developing and deploying competitive clean tech. In other words, clean tech growth nationwide (and globally) will be determined not by subsidies, but by innovation that can lead to technologies that are better and cheaper than fossil fuels.¶ Yet, our policy choices often don’t reflect this reality. According to ITIF’s Energy Innovation Tracker, the U.S. is investing roughly $6 billion in clean energy R&D in FY2012 – on average a third what leading experts think the U.S. should be investing. In fact, the bulk of the federal government’s historic investment in clean energy – nearly three quarters of the $150 billion – is going to the deployment of existing technologies that are not cost-competitive with fossil fuel sources of energy. While these deployment incentives expand domestic supply chains and are spurring incremental innovations, the policies are acting like blunt force tools propping up lower-risk technologies while playing little role in incenting innovation and technologies to put clean energy on a path to subsidy independence. By not orienting the significant federal investment in clean tech towards spurring innovation while grossly underfunding R&D, the U.S. is failing to jump start and accelerate the clean tech innovations needed to create a robust, long-term sustainable industry. Even if the expiring tax incentives are extended as is, the long-term stagnation of the industry will still occur due to a lack of innovation. If we want a global clean tech revolution driven by the marketplace, we need to bring the equivalent of “Moore’s law” (the prediction that computing power would double every 24 months while costs would fall by half) to clean energy. Nothing less will work.¶ But it’s not too late to avert both the short-term clean tech bust and long-term innovation stagnation if federal policymakers and clean energy advocates truly make innovation less like empty rhetoric and more its core goal. This means fully funding key clean energy innovation R&D programs even in a time of budget austerity. Consistent support for innovation is absolutely necessary – just ask the fossil fuel industry which continues to reap the benefits of a century’s worth of government largesse deficits or not – and cutting innovation programs does more harm than good to the deficit and economy.¶ Policymakers must also reform clean tech deployment subsidies to link early stage tech development with commercialization. Simply extending expiring or expired subsidies and tax incentives are simply not enough and will only continue to marginally grow the industry. It’s surely not a long-term solution to continue deploying technologies carte blanche even if they don’t hold the promise of competitiveness. A group re-think on clean tech subsidy programs is critical. It’s for “smart” deployment policies that work to pull transformative innovations, rather than just extend incremental innovations of costly energy technologies.¶

#### Performance-based incentives solve without picking winners – substantially boosts innovation more than the plan

**Jenkins, 12** – Director of Energy and Climate Policy at the Breakthrough Institute (Jesse, Congressional Testimony before the Senate Committee on Energy and Natural Resources, 5/22, <http://www.energy.senate.gov/public/index.cfm/files/serve?File_id=31b79a1a-83a0-4ae6-8c80-30fe754ad0ea>)

Several policies could be structured to meet these criteria, including:¶ • Competitive deployment incentives could be created for various clean tech segments of similar maturity, with incentives for each segment falling steadily over time to demand and reward continual innovation and price improvements.20¶ • Steadily improving performance‐based standards could create both market demand and spur consistent technology improvement.21¶ • “Top-runner” programs competitively establish performance standards or financial incentive levels based on the leading industry performers in each market segment, forcing other firms to steadily innovate to stay competitive in the market.22¶ • Demanding federal procurement opportunities could be created to drive both market opportunities and ensure steady improvement of each successive generation of product, particularly when advanced energy technology products align with strategic military needs.23¶ • Reverse auction incentives could be established for varying technologies to drive industry competition and innovation.24¶ If structured to adhere to these criteria, a new era of advanced energy deployment policies will neither select “winners and losers” a priori, nor create permanently subsidized industries. Rather, these policies will provide opportunity for all emerging advanced energy technologies to demonstrate progress in price and performance, foster competitive markets within a diverse energy portfolio, and put these segments on track to full subsidy independence.

### Heg Outweighs

#### Better explanation for why violence happens- status disparities

Wohlforth 2009 William C. Wohlforth (a professor of government at Dartmouth College) 2009 “Unipolarity, Status Competition, and Great Power War” Project Muse

Second, I question the dominant view that status quo evaluations are relatively independent of the distribution of capabilities. If the status of states depends in some measure on their relative capabilities, and if states derive utility from status, then different distributions of capabilities may affect levels of satisfaction, just as different income distributions may affect levels of status competition in domestic settings. 6 Building on research in psychology and sociology, I argue that even capabilities distributions among major powers foster ambiguous status hierarchies, which generate more dissatisfaction and clashes over the status quo. And the more stratified the distribution of capabilities, the less likely such status competition is. Unipolarity thus generates far fewer incentives than either bipolarity or multipolarity for direct great power positional competition over status. Elites in the other major powers continue to prefer higher status, but in a unipolar system they face comparatively weak incentives to translate that preference into costly action. And the absence of such incentives matters because social status is a positional good—something whose value depends on how much one has in relation to others.7 “If everyone has high status,” Randall Schweller notes, “no one does.”8 While one actor might increase its status, all cannot simultaneously do so. High status is thus inherently scarce, and competitions for status tend to be zero sum.9 I begin by describing the puzzles facing predominant theories that status competition might solve. Building on recent research on social identity and status seeking, I then show that under certain conditions the ways decision makers identify with the states they represent may prompt them to frame issues as positional disputes over status in a social hierarchy. I develop hypotheses that tailor this scholarship to the domain of great power politics, showing how the probability of status competition is likely to be linked to polarity. The rest of the article investigates whether there is sufficient evidence for these hypotheses to warrant further refinement and testing. I pursue this in three ways: by showing that the theory advanced here is consistent with what we know about large-scale patterns of great power conflict through history; by [End Page 30] demonstrating that the causal mechanisms it identifies did drive relatively secure major powers to military conflict in the past (and therefore that they might do so again if the world were bipolar or multipolar); and by showing that observable evidence concerning the major powers’ identity politics and grand strategies under unipolarity are consistent with the theory’s expectations. Puzzles of Power and War Recent research on the connection between the distribution of capabilities and war has concentrated on a hypothesis long central to systemic theories of power transition or hegemonic stability: that major war arises out of a power shift in favor of a rising state dissatisfied with a status quo defended by a declining satisfied state.10 Though they have garnered substantial empirical support, these theories have yet to solve two intertwined empirical and theoretical puzzles—each of which might be explained by positional concerns for status. First, if the material costs and benefits of a given status quo are what matters, why would a state be dissatisfied with the very status quo that had abetted its rise? The rise of China today naturally prompts this question, but it is hardly a novel situation. Most of the best known and most consequential power transitions in history featured rising challengers that were prospering mightily under the status quo. In case after case, historians argue that these revisionist powers sought recognition and standing rather than specific alterations to the existing rules and practices that constituted the order of the day. In each paradigmatic case of hegemonic war, the claims of the rising power are hard to reduce to instrumental adjustment of the status quo. In R. Ned Lebow’s reading, for example, Thucydides’ account tells us that the rise of Athens posed unacceptable threats not to the security or welfare of Sparta but rather to its identity as leader of the Greek world, which was an important cause of the Spartan assembly’s vote for war.11 The issues that inspired Louis XIV’s and Napoleon’s dissatisfaction with the status quo were many and varied, but most accounts accord [End Page 31] independent importance to the drive for a position of unparalleled primacy. In these and other hegemonic struggles among leading states in post-Westphalian Europe, the rising challenger’s dissatisfaction is often difficult to connect to the material costs and benefits of the status quo, and much contemporary evidence revolves around issues of recognition and status.12 Wilhemine Germany is a fateful case in point. As Paul Kennedy has argued, underlying material trends as of 1914 were set to propel Germany’s continued rise indefinitely, so long as Europe remained at peace.13 Yet Germany chafed under the very status quo that abetted this rise and its elite focused resentment on its chief trading partner—the great power that presented the least plausible threat to its security: Great Britain. At fantastic cost, it built a battleship fleet with no plausible strategic purpose other than to stake a claim on global power status.14 Recent historical studies present strong evidence that, far from fearing attacks from Russia and France, German leaders sought to provoke them, knowing that this would lead to a long, expensive, and sanguinary war that Britain was certain to join.15 And of all the motivations swirling round these momentous decisions, no serious historical account fails to register German leaders’ oft-expressed yearning for “a place in the sun.” The second puzzle is bargaining failure. Hegemonic theories tend to model war as a conflict over the status quo without specifying precisely what the status quo is and what flows of benefits it provides to states.16 Scholars generally follow Robert Gilpin in positing that the underlying issue concerns a “desire to redraft the rules by which relations among nations work,” “the nature and governance of the system,” and “the distribution of territory among the states in the system.”17 If these are the [End Page 32] issues at stake, then systemic theories of hegemonic war and power transition confront the puzzle brought to the fore in a seminal article by James Fearon: what prevents states from striking a bargain that avoids the costs of war? 18 Why can’t states renegotiate the international order as underlying capabilities distributions shift their relative bargaining power? Fearon proposed that one answer consistent with strict rational choice assumptions is that such bargains are infeasible when the issue at stake is indivisible and cannot readily be portioned out to each side. Most aspects of a given international order are readily divisible, however, and, as Fearon stressed, “both the intrinsic complexity and richness of most matters over which states negotiate and the availability of linkages and side-payments suggest that intermediate bargains typically will exist.”19 Thus, most scholars have assumed that the indivisibility problem is trivial, focusing on two other rational choice explanations for bargaining failure: uncertainty and the commitment problem.20 In the view of many scholars, it is these problems, rather than indivisibility, that likely explain leaders’ inability to avail themselves of such intermediate bargains. Yet recent research inspired by constructivism shows how issues that are physically divisible can become socially indivisible, depending on how they relate to the identities of decision makers.21 Once issues surrounding the status quo are framed in positional terms as bearing on the disputants’ relative standing, then, to the extent that they value their standing itself, they may be unwilling to pursue intermediate bargaining solutions. Once linked to status, easily divisible issues that theoretically provide opportunities for linkages and side payments of various sorts may themselves be seen as indivisible and thus unavailable as avenues for possible intermediate bargains. The historical record surrounding major wars is rich with evidence suggesting that positional concerns over status frustrate bargaining: expensive, protracted conflict over what appear to be minor issues; a propensity on the part of decision makers to frame issues in terms of relative rank even when doing so makes bargaining harder; decision-makers’ [End Page 33] inability to accept feasible divisions of the matter in dispute even when failing to do so imposes high costs; demands on the part of states for observable evidence to confirm their estimate of an improved position in the hierarchy; the inability of private bargains to resolve issues; a frequently observed compulsion for the public attainment of concessions from a higher ranked state; and stubborn resistance on the part of states to which such demands are addressed even when acquiescence entails limited material cost. The literature on bargaining failure in the context of power shifts remains inconclusive, and it is premature to take any empirical pattern as necessarily probative. Indeed, Robert Powell has recently proposed that indivisibility is not a rationalistic explanation for war after all: fully rational leaders with perfect information should prefer to settle a dispute over an indivisible issue by resorting to a lottery rather than a war certain to destroy some of the goods in dispute. What might prevent such bargaining solutions is not indivisibility itself, he argues, but rather the parties’ inability to commit to abide by any agreement in the future if they expect their relative capabilities to continue to shift.22 This is the credible commitment problem to which many theorists are now turning their attention. But how it relates to the information problem that until recently dominated the formal literature remains to be seen.23 The larger point is that positional concerns for status may help account for the puzzle of bargaining failure. In the rational choice bargaining literature, war is puzzling because it destroys some of the benefits or flows of benefits in dispute between the bargainers, who would be better off dividing the spoils without war. Yet what happens to these models if what matters for states is less the flows of material benefits themselves than their implications for relative status? The salience of this question depends on the relative importance of positional concern for status among states. Do Great Powers Care about Status? Mainstream theories generally posit that states come to blows over an international status quo only when it has implications for their security or material well-being. The guiding assumption is that a state’s satisfaction [End Page 34] with its place in the existing order is a function of the material costs and benefits implied by that status.24 By that assumption, once a state’s status in an international order ceases to affect its material wellbeing, its relative standing will have no bearing on decisions for war or peace. But the assumption is undermined by cumulative research in disciplines ranging from neuroscience and evolutionary biology to economics, anthropology, sociology, and psychology that human beings are powerfully motivated by the desire for favorable social status comparisons. This research suggests that the preference for status is a basic disposition rather than merely a strategy for attaining other goals.25 People often seek tangibles not so much because of the welfare or security they bring but because of the social status they confer. Under certain conditions, the search for status will cause people to behave in ways that directly contradict their material interest in security and/or prosperity.

### Chem indust Add On

#### **Chemical industry demand declining despite supply increases**

Fulp 11 (Mickey, Certified Professional Geologist with a B.Sc. Earth Sciences with honor from the University of Tulsa, and M.Sc. Geology from the University of New Mexico, “What's Up (or Down) with the Nat Gas Market?,” 7-12-11, The Energy Report, <http://www.theenergyreport.com/pub/na/10247>)

Domestic demand for natural gas comes from four general uses: Residential and commercial: 22%; space heating and cooking. Industrial: 38%; fuel for the pulp and paper, metal, chemical, petroleum refining and food-processing industries; feedstock for plastic, chemical and fertilizer production. These uses are projected to decline as the economy moves toward less energy-intensive manufacturing processes.

#### Chemical industry doesn’t solve sustainability

Elkington 12 (John, executive chairman of Volans and non-executive director at SustainAbility. “Chemical industry isn't doing enough to embrace sustainability,” 9-12-12, <http://www.guardian.co.uk/sustainable-business/sustainability-with-john-elkington/chemical-industry-embrace-sustainability-environment?newsfeed=true>)

One speaker showed a slide headed 'Sustainability is …', spotlighting Shin-Etsu, a Japanese chemical company that suffered a major explosion. Instead of clamming up, as Japanese corporate leaders are wont to do, the CEO took a voluntary pay-cut and went out to apologise to the local community. Apologising to people when you have accidentally blown them up makes sense, most of the time, but in the context of the global challenges we face I struggle to see this as a definitive (indeed, even a legitimate) case of sustainability in practice. Then another speaker, this time from ExxonMobil Chemical, asserted that – based on the latest life-cycle assessment data – shopping bags made out of high density polyethylene (HDPE) are the sustainable option. Paper bags, he insisted, should be dropped because of the energy and water consumption involved. Ah. When the discussion period came, I asked whether the data had taken into account the great swirling gyres of plastic debris that now scar large areas of the world ocean? No, he admitted. For such people, as a speaker from BASF assured us, sustainability means we "are on a journey". Like many others, this German company has talked to a considerable number of stakeholders (350, by their reckoning) and boiled it all down to a shortlist of issues (just 40 of those). The main conclusion seems to be that we must all create more shared value while, simultaneously, shrinking our environmental footprints. Good, but by how much? That's a question that the sector finds it hard to answer, except in areas where there is a legal requirement that the use of particular chemicals be driven to zero, like hexavalent chromium. And, while most participants intensely dislike the idea of further regulation, there were those – including Peter Kunze of the European Automobile Manufacturers Association – who argued for much clearer signals on which chemicals would be banned ultimately, coupled with "smart legislation" to ensure that the process of conversion didn't undermine industrial or regional competitiveness. It was intriguing to see successive speakers through the lenses of vested interests. A panel of four speakers, for example, agreed that renewable feedstocks were very unlikely to make much of an impression on the industry in the next decade or two. Then a colleague from another chemical company whispered in my ear that three of the four companies were backwards-integrated into the oil sector, effectively making them fossil fuel junkies. Hardly surprising, then, that they find it hard to imagine – or at least publicly admit the possibility of – a radically different future. Behind the scenes people spoke quietly of lobbying that is underway by parts of the industry: in the US, for example, chemical companies are fighting tooth-and-nail to ensure suspect chemicals and products like formaldehyde and styrene continue to be allowed in LEED-certified buildings. On the upside, Nicholas Denis of McKinsey & Co reported results of their recent market survey showing that green products are now seen much more positively by both consumers and industry executives, with between 82 and 93% of both categories saying they want to go greener, even though "the road to green chemicals is harder than we thought initially" and the notion of a "green premium is still a Holy Grail for most companies." Procter & Gamble promptly disagreed, to a degree, noting that their efforts to promote greener products like compact detergents had been stymied by the unwillingness of most consumers to change to seemingly smaller products at the same price-point. So the detergent industry went to government, asked for permission to avoid anti-trust rules, and moved as a group of companies to strip non-compact products from the shelves. "I would love it if consumers wanted greener products, mused P&G's Peter Kunze, "because we would then have a business model!"

# 1NR

Lots of Case D- message me if those cites are really that interesting to you [oakparkdebate@gmail.com](mailto:oakparkdebate@gmail.com)

# Rd 7 v Trinity MR

### Off

#### The aff should advocate increasing energy production

#### The subject: central government- the USFG.

#### The verb: increase- to make greater. Or reduce to make smaller

#### The objects -Financial incentives means loans/grants

**UNCTAD, 4** - UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT (“INCENTIVES”

http://unctad.org/en/docs/iteiit20035\_en.pdf

There is no uniform definition of what constitutes an “investment incentive”. (Box I.1. contains a list of commonly used incentives.) The only major international instrument that contains a partial definition is the SCM Agreement (see below). Governments use three main categories of investment incentives to attract FDI and to benefit more from it:

· financial incentives, such as outright grants and loans at concessionary rates;

· fiscal incentives such as tax holidays and reduced tax rates;

· other incentives, including subsidized infrastructure or services, market preferences and regulatory concessions, including exemptions from labour or environmental standards.

#### Restrictions must legally mandate less production

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.

#### Links

#### 1. The SUBJECT of the action is the AFF team, not the USFG.

#### 2. The OBJECT of the action is the judge, not energy.

#### 3. Their use of the double and/or makes the plan totally incoherent and proves it could mean any one of 12 things and negate any or all of the others.

#### Vote neg-

#### Infinite regression—disregarding resolutional syntax produces an endless regression to small, trivial plans. For example, an aff only about the subject opens the door to ANY philosophy that speaks to ‘being.’

#### The impact to that is decisionmaking—debate over a controversial point of action creates argumentative stasis—that’s key to avoid a devolution of debate into competing truth claims

Steinberg, lecturer of communication studies – University of Miami, and Freeley, Boston based attorney who focuses on criminal, personal injury and civil rights law, ‘8

(David L. and Austin J., Argumentation and Debate: Critical Thinking for Reasoned Decision Making p. 45)

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.

#### Decisionmaking is the most portable skill—key to all facets of life and advocacy

Steinberg, lecturer of communication studies – University of Miami, and Freeley, Boston based attorney who focuses on criminal, personal injury and civil rights law, ‘8

(David L. and Austin J., Argumentation and Debate: Critical Thinking for Reasoned Decision Making p. 9-10)

After several days of intense debate, first the United States House of Representatives and then the U.S. Senate voted to authorize President George W. Bush to attack Iraq if Saddam Hussein refused to give up weapons of mass destruction as required by United Nations's resolutions. Debate about a possible military\* action against Iraq continued in various governmental bodies and in the public for six months, until President Bush ordered an attack on Baghdad, beginning Operation Iraqi Freedom, the military campaign against the Iraqi regime of Saddam Hussein. He did so despite the unwillingness of the U.N. Security Council to support the military action, and in the face of significant international opposition.¶ Meanwhile, and perhaps equally difficult for the parties involved, a young couple deliberated over whether they should purchase a large home to accommodate their growing family or should sacrifice living space to reside in an area with better public schools; elsewhere a college sophomore reconsidered his major and a senior her choice of law school, graduate school, or a job. Each of these\* situations called for decisions to be made. Each decision maker worked hard to make well-reasoned decisions.¶ Decision making is a thoughtful process of choosing among a variety of options for acting or thinking. It requires that the decider make a choice. Life demands decision making. We make countless individual decisions every day. To make some of those decisions, we work hard to employ care and consideration; others seem to just happen. Couples, families, groups of friends, and coworkers come together to make choices, and decision-making homes from committees to juries to the U.S. Congress and the United Nations make decisions that impact us all. Every profession requires effective and ethical decision making, as do our school, community, and social organizations.¶ We all make many decisions even- day. To refinance or sell one's home, to buy a high-performance SUV or an economical hybrid car. what major to select, what to have for dinner, what candidate CO vote for. paper or plastic, all present lis with choices. Should the president deal with an international crisis through military invasion or diplomacy? How should the U.S. Congress act to address illegal immigration?¶ Is the defendant guilty as accused? Tlie Daily Show or the ball game? And upon what information should I rely to make my decision? Certainly some of these decisions are more consequential than others. Which amendment to vote for, what television program to watch, what course to take, which phone plan to purchase, and which diet to pursue all present unique challenges. At our best, we seek out research and data to inform our decisions. Yet even the choice of which information to attend to requires decision making. In 2006, TIMI: magazine named YOU its "Person of the Year." Congratulations! Its selection was based on the participation not of ''great men" in the creation of history, but rather on the contributions of a community of anonymous participants in the evolution of information. Through blogs. online networking. You Tube. Facebook, MySpace, Wikipedia, and many other "wikis," knowledge and "truth" are created from the bottom up, bypassing the authoritarian control of newspeople. academics, and publishers. We have access to infinite quantities of information, but how do we sort through it and select the best information for our needs?¶ The ability of every decision maker to make good, reasoned, and ethical decisions relies heavily upon their ability to think critically. Critical thinking enables one to break argumentation down to its component parts in order to evaluate its relative validity and strength. Critical thinkers are better users of information, as well as better advocates.¶ Colleges and universities expect their students to develop their critical thinking skills and may require students to take designated courses to that end. The importance and value of such study is widely recognized.¶ Much of the most significant communication of our lives is conducted in the form of debates. These may take place in intrapersonal communications, in which we weigh the pros and cons of an important decision in our own minds, or they may take place in interpersonal communications, in which we listen to arguments intended to influence our decision or participate in exchanges to influence the decisions of others.¶ Our success or failure in life is largely determined by our ability to make wise decisions for ourselves and to influence the decisions of others in ways that are beneficial to us. Much of our significant, purposeful activity is concerned with making decisions. Whether to join a campus organization, go to graduate school, accept a job oiler, buy a car or house, move to another city, invest in a certain stock, or vote for Garcia—these are just a few of the thousands of decisions we may have to make. Often, intelligent self-interest or a sense of responsibility will require us to win the support of others. We may want a scholarship or a particular job for ourselves, a customer for out product, or a vote for our favored political candidate.

#### Limits—resolutional limits encourage AFF innovation, predictive research on a designated topic, and clash—a precursor to productive education. Must define all words- key to meaning and negative prep. Also, the inherent value of arguments within limits is greater, which link turns education arguments.

#### Unbridled affirmation makes research impossible and destroys dialogue in debate

Hanghoj 8

http://static.sdu.dk/mediafiles/Files/Information\_til/Studerende\_ved\_SDU/Din\_uddannelse/phd\_hum/afhandlinger/2009/ThorkilHanghoej.pdf¶ Thorkild Hanghøj, Copenhagen, 2008 ¶ Since this PhD project began in 2004, the present author has been affiliated with DREAM (Danish¶ Research Centre on Education and Advanced Media Materials), which is located at the Institute of¶ Literature, Media and Cultural Studies at the University of Southern Denmark. Research visits have¶ taken place at the Centre for Learning, Knowledge, and Interactive Technologies (L-KIT), the¶ Institute of Education at the University of Bristol and the institute formerly known as Learning Lab¶ Denmark at the School of Education, University of Aarhus, where I currently work as an assistant¶ professor.

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).

#### Dialogue is critical to affirming any value—shutting down deliberation devolves into totalitarianism and reinscribes oppression

Morson 4

http://www.flt.uae.ac.ma/elhirech/baktine/0521831059.pdf#page=331

Northwestern Professor, Prof. Morson's work ranges over a variety of areas: literary theory (especially narrative); the history of ideas, both Russian and European; a variety of literary genres (especially satire, utopia, and the novel); and his favorite writers -- Chekhov, Gogol, and, above all, Dostoevsky and Tolstoy. He is especially interested in the relation of literature to philosophy.

Bakhtin viewed the whole process of “ideological” (in the sense of ideas and values, however unsystematic) development as an endless dialogue. As teachers, we find it difficult to avoid a voice of authority, however much we may think of ours as the rebel’s voice, because our rebelliousness against society at large speaks in the authoritative voice of our subculture.We speak the language and thoughts of academic educators, even when we imagine we are speaking in no jargon at all, and that jargon, inaudible to us, sounds with all the overtones of authority to our students. We are so prone to think of ourselves as fighting oppression that it takes some work to realize that we ourselves may be felt as oppressive and overbearing, and that our own voice may provoke the same reactions that we feel when we hear an authoritative voice with which we disagree. So it is often helpful to think back on the great authoritative oppressors and reconstruct their self-image: helpful, but often painful. I remember, many years ago, when, as a recent student rebel and activist, I taught a course on “The Theme of the Rebel” and discovered, to my considerable chagrin, that many of the great rebels of history were the very same people as the great oppressors. There is a famous exchange between Erasmus and Luther, who hoped to bring the great Dutch humanist over to the Reformation, but Erasmus kept asking Luther how he could be so certain of so many doctrinal points. We must accept a few things to be Christians at all, Erasmus wrote, but surely beyond that there must be room for us highly fallible beings to disagree. Luther would have none of such tentativeness. He knew, he was sure. The Protestant rebels were, for a while, far more intolerant than their orthodox opponents. Often enough, the oppressors are the ones who present themselves and really think of themselves as liberators. Certainty that one knows the root cause of evil: isn’t that itself often the root cause? We know from Tsar Ivan the Terrible’s letters denouncing Prince Kurbsky, a general who escaped to Poland, that Ivan saw himself as someone who had been oppressed by noblemen as a child and pictured himself as the great rebel against traditional authority when he killed masses of people or destroyed whole towns. There is something in the nature of maximal rebellion against authority that produces ever greater intolerance, unless one is very careful. For the skills of fighting or refuting an oppressive power are not those of openness, self-skepticism, or real dialogue. In preparing for my course, I remember my dismay at reading Hitler’s Mein Kampf and discovering that his self-consciousness was precisely that of the rebel speaking in the name of oppressed Germans, and that much of his amazing appeal – otherwise so inexplicable – was to the German sense that they were rebelling victims. In our time, the Serbian Communist and nationalist leader Slobodan Milosevic exploited much the same appeal. Bakhtin surely knew that Communist totalitarianism, the Gulag, and the unprecedented censorship were constructed by rebels who had come to power. His favorite writer, Dostoevsky, used to emphasize that the worst oppression comes from those who, with the rebellious psychology of “the insulted and humiliated,” have seized power – unless they have somehow cultivated the value of dialogue, as Lenin surely had not, but which Eva, in the essay by Knoeller about teaching The Autobiography of Malcolm X, surely had. Rebels often make the worst tyrants because their word, the voice they hear in their consciousness, has borrowed something crucial from the authoritative word it opposed, and perhaps exaggerated it: the aura of righteous authority. If one’s ideological becoming is understood as a struggle in which one has at last achieved the truth, one is likely to want to impose that truth with maximal authority; and rebels of the next generation may proceed in much the same way, in an ongoing spiral of intolerance.

#### If our interpretation is net-beneficial it means there’s no reason to vote affirmative. If the case is true then it de-justifies the resolution. Teams are still signified by ‘AFF’ and ‘NEG’, so the resolution is a required measurement for ‘affirmation.’ It’s also outside your jurisdiction to vote for anything other than yes/no on the rez.

### Off

#### The United States federal government should establish a cap-and-trade system for carbon emissions in the United States.

#### Cap and Trade solves warming

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

Public investments of these magnitudes, targeted at specific industries, arguably constitute an industrial policy, albeit a sectoral one, unlike the earlier proposals of the 1980's —that is, a government strategy to steer resources toward select producers or technologies. The rationale and efficacy of these clean-energy expenditures call for scrutiny.¶ Proponents offer numerous reasons for scaling up particular energy technologies at the taxpayer's expense. One set of reasons involves the need to remediate market failures that have not been corrected by other policies. For example, clean-energy technologies are said to emit fewer greenhouse gases than do traditional sources per unit of energy produced. The United States does not have an economy-wide policy to control greenhouse gases, most notably, one that puts a price on C02 that reflects the environmental harm associated with use of fossil fuels.¶ A far more effective policy than subsidies for clean energy research, development and demonstration would be a tax or a cap-and-trade regime that would put an appropriate price on carbon and other greenhouse gases. Properly implemented, this alternative approach would help level the playing field for greener energy sources, for it would require emitters to pay prices that reflect the costs their emissions impose on society. The enhanced efficiency that would result has been widely recognized by economists.6 True costs would flow to purchasers of goods and services that require energy, suitably inducing conservation. Emitters would have incentives to invest in equipment and new production techniques, use alternative fuels, and seek other methods to reduce emissions. And America's innovators would channel their efforts into inventing, scaling up, and marketing competitive forms of clean energy. However, because existing market signals do not suffice to encourage climate-friendly technologies, carefully targeted federal funding seems warranted. But as we explain later, it is ironically only after incorporating the social costs of energy into market prices that many clean energy subsidies will succeed in deploying new technologies.

#### Short-term market mechanisms are the only solution to environmental destruction---the aff is ideological blindness parading as moral purity which justifies the status quo

Bryant 12—professor of philosophy at Collin College (Levi, We’ll Never Do Better Than a Politician: Climate Change and Purity, 5/11/12, http://larvalsubjects.wordpress.com/2012/05/11/well-never-do-better-than-a-politician-climate-change-and-purity/)

Somewhere or other Latour makes the remark that we’ll never do better than a politician. Here it’s important to remember that for Latour– as for myself –every entity is a “politician”. Latour isn’t referring solely to those persons that we call “politicians”, but to all entities that exist. And if Latour claims that we’ll never do better than a politician, then this is because every entity must navigate a field of relations to other entities that play a role in what is and is not possible in that field. In the language of my ontology, this would be articulated as the thesis that the local manifestations of which an entity is capable are, in part, a function of the relations the entity entertains to other entities in a regime of attraction. The world about entities perpetually introduces resistances and frictions that play a key role in what comes to be actualized. It is this aphorism that occurred to me today after a disturbing discussion with a rather militant Marxist on Facebook. I had posted a very disturbing editorial on climate change by the world renowned climate scientist James Hansen. Not only did this person completely misread the editorial, denouncing Hansen for claiming that Canada is entirely responsible for climate change (clearly he had no familiarity with Hansen or his important work), but he derided Hansen for proposing market-based solutions to climate change on the grounds that “the market is the whole source of the problem!” It’s difficult to know how to respond in this situations. read on! It is quite true that it is the system of global capitalism or the market that has created our climate problems (though, as Jared Diamond shows in Collapse, other systems of production have also produced devastating climate problems). In its insistence on profit and expansion in each economic quarter, markets as currently structured provide no brakes for environmental destructive actions. The system is itself pathological. However, pointing this out and deriding market based solutions doesn’t get us very far. In fact, such a response to proposed market-based solutions is downright dangerous and irresponsible. The fact of the matter is that 1) we currently live in a market based world, 2) there is not, in the foreseeable future an alternative system on the horizon, and 3), above all, we need to do something now. We can’t afford to reject interventions simply because they don’t meet our ideal conceptions of how things should be. We have to work with the world that is here, not the one that we would like to be here. And here it’s crucial to note that pointing this out does not entail that we shouldn’t work for producing that other world. It just means that we have to grapple with the world that is actually there before us. It pains me to write this post because I remember, with great bitterness, the diatribes hardcore Obama supporters leveled against legitimate leftist criticisms on the grounds that these critics were completely unrealistic idealists who, in their demand for “purity”, were asking for “ponies and unicorns”. This rejoinder always seemed to ignore that words have power and that Obama, through his profound power of rhetoric, had, at least the power to shift public debates and frames, opening a path to making new forms of policy and new priorities possible. The tragedy was that he didn’t use that power, though he has gotten better. I do not wish to denounce others and dismiss their claims on these sorts of grounds. As a Marxist anarchists, I do believe that we should fight for the creation of an alternative hominid ecology or social world. I think that the call to commit and fight, to put alternatives on the table, has been one of the most powerful contributions of thinkers like Zizek and Badiou. If we don’t commit and fight for alternatives those alternatives will never appear in the world. Nonetheless, we still have to grapple with the world we find ourselves in. And it is here, in my encounters with some Militant Marxists, that I sometimes find it difficult to avoid the conclusion that they are unintentionally aiding and abetting the very things they claim to be fighting. In their refusal to become impure, to work with situations or assemblages as we find them, to sully their hands, they end up reproducing the very system they wish to topple and change. Narcissistically they get to sit there, smug in their superiority and purity, while everything continues as it did before because they’ve refused to become politicians or engage in the difficult concrete work of assembling human and nonhuman actors to render another world possible. As a consequence, they occupy the position of Hegel’s beautiful soul that denounces the horrors of the world, celebrate the beauty of their soul, while depending on those horrors of the world to sustain their own position. To engage in politics is to engage in networks or ecologies of relations between humans and nonhumans. To engage in ecologies is to descend into networks of causal relations and feedback loops that you cannot completely master and that will modify your own commitments and actions. But there’s no other way, there’s no way around this, and we do need to act now. ¶ a sort of rationalization, for a very different set of operations that are taking place. Just as the capitalist says he’s trying to benefit the world, the academic tries to say he’s trying to change the world when all he’s really doing is maintaining a particular operationally closed autopoietic system. How to break this closure is a key question for any truly engaged political theory. And part of breaking that closure will entail eating some humble pie. Adam Kotsko wrote a wonderful and hilarious post on the absurdities of some political theorizing and its self-importance today. We’ve failed horribly with university politics and defending the humanities, yet in our holier-than-thou attitudes we call for a direct move to communism. Perhaps we need to reflect a bit on ourselves and our strategies and what political theory should be about.¶ Setting all this aside, I think there’s a danger in Wark’s claims about abstraction (though I think he’s asking the right sort of question). The danger in treating hyperobjects like capitalism as being everywhere and nowhere is that our ability to act becomes paralyzed. As a materialist, I’m committed to the thesis that everything is ultimately material and requires some sort of material embodiment. If that’s true, it follows that there are points of purchase on every object, even where that object is a hyperobject. This is why, given the current form that power takes or the age of hyperobjects, I believe that forms of theory such as new materialism, object-oriented ontology, and actor-network theory are more important than ever (clearly the Whiteheadians are out as they see everything as internally related, as an organism, and therefore have no way of theorizing change and political engagement; they’re quasi-Hegelian, justifying even the discord in the world as a part of “god’s” selection and harmonization of intensities).¶ The important thing to remember is that hyperobjects like capitalism are unable to function without a material base. They require highways, shipping routes, trains and railroads, fiber optic cables for communication, and a host of other things besides. Without what Shannon Mattern calls “infrastructure”, it’s impossible for this particular hyperobject exists. Every hyperobject requires its arteries. Information, markets, trade, require the paths along which they travel and capitalism as we know it today would not be possible without its paths. The problem with so much political theory today is that it focuses on the semiosphere in the form of ideologies, discourses, narratives, laws, etc., ignoring the arteries required for the semiosphere to exercise its power. For example, we get OWS standing in front of Wall Street protesting– engaging in a speech act –yet one wonders if speech is an adequate way of addressing the sort of system we exist in. Returning to system’s theory, is the system of capital based on individual decisions of bankers and CEO’s, or does the system itself have its own cognition, it’s own mode of action, that they’re ineluctably trapped in? Isn’t there a sort of humanist prejudice embodied in this form of political engagement? It has value in that it might create larger collectives of people to fight these intelligent aliens that live amongst us (markets, corporations, etc), but it doesn’t address these aliens themselves because it doesn’t even acknowledge their existence.¶ What we need is a politics adequate to hyperobjects, and that is above all a politics that targets arteries. OOO, new materialism, and actor-network theory are often criticized for being “apolitical” by people who are fascinated with political declarations, who are obsessed with showing that your papers are in order, that you’ve chosen the right team, and that see critique and protest as the real mode of political engagement. But it is not clear what difference these theorists are making and how they are escaping intra-systemic self-reference and auto-reproduction. But the message of these orientations is “to the things themselves!”, “to the assemblages themselves!” “Quit your macho blather about where you stand, and actually map power and how it exercises itself!” And part of this re-orientation of politics, if it exists, consists in rendering deconstruction far more concrete. Deconstruction would no longer show merely the leaks in any system and its diacritical oppositions, it would go to the things themselves. What does that mean? It means that deconstruction would practice onto-cartography or identify the arteries by which capitalism perpetuates itself and find ways to block them. You want to topple the 1% and get their attention? Don’t stand in front of Wall Street and bitch at bankers and brokers, occupy a highway. Hack a satellite and shut down communications. Block a port. Erase data banks, etc. Block the arteries; block the paths that this hyperobject requires to sustain itself. This is the only way you will tilt the hands of power and create bargaining power with government organs of capital and corporations. You have to hit them where they live, in their arteries. Did anyone ever change their diet without being told that they would die? Your critique is an important and indispensable step, but if you really wish to produce change you need to find ways to create heart attacks and aneurysms. Short of that, your activity is just masturbation. But this requires coming to discern where the arteries are and doing a little less critique of cultural artifacts and ideologies. Yet choose your targets carefully. The problem with the Seattle protests was that they chose idiotic targets and simply acted on impotent rage. A window is not an artery. It doesn’t organize a flow of communication and capital. It’s the arteries that you need to locate. I guess this post will get Homeland Security after me

**Changing growth to solve climate change works – radical social change won’t.**

Manuel Arias-**MALDONADO** Poli Sci @ Malaga **’12** *Real Green: Sustainability After the End of Nature* p. 116-120

In principle, public opinion should just rely on science- hence the activity of the Intergovernmental Panel on Climate Change as a bridge between science and the public. But then again, we have read Kuhn and Fereyabend: the sociology of scientific knowledge has convinced us that society is inside the laboratory and science can only reflect social priorities and political interests. How can we just rely on science? To some, actually, climatology is not saying the truth about global warming (Leroux 2005). Yet science must still be our standpoint, for there is no better alternative, even though it is a "post-normal science" whereby "facts are uncertain, values in dispute, stakes high and decision urgent" (Funtowicz and Ravetz 1993: 742). However, a misunderstanding should be avoided. It is in this context that Sheila Jasanoff (2007) has advocated the need to produce a more humble science, one that leaves room for ethics and renounces the modem dream of a complete control over nature. That is just about right. But the reflective re-shaping of socionatural relations, up to a point where we try to regulate the oscillations of the climate with our actions, is not precisely a humble goal, nor an absurd one, especially since there is no direct relation between the current scientific consensus and the green radical vision of a de-industrialised society. Although action must be taken, it should be a proportionate one. Devising public policies and fostering private behaviour as part of a climate change policy should not be used as a pretext for advancing a closed conception of sustainability. Sustainability must encompass climate change, instead of climate change simply closing up sustainability. I would like to suggest that climate change's social dilemma resembles the one described by Blaise Pascal regarding God's existence. He famously reduced faith to a wager after considering the probabilities at stake. Pascal suggested that, although we cannot prove through reason that God exists, a person should bet on His existence, since living life accordingly one has everything to gain and nothing to lose, whereas, even more crucially, acting otherwise could mean losing everything and gaining eternal damnation (Pascal1995: 123-5). Likewise, we do know that temperatures are rising, although we do not know how will they evolve in the future, while there exists the possibility that humans are an active agent in that process and they can still influence on it. Thus two related possibilities become meaningless: that humans have nothing to do with the climate's evolution or that they cannot influence the current process anymore. They become meaningless because we must maximise our chances, that is, we must act as if advancing towards sustainability could mitigate global warming or at least facilitating the least damaging adaptation to its effects. No other wager makes sense. However, the need to act does not automatically indicate how to do so. Hence the public debate. We know that social engineering on a huge scale can fail miserably - as the twentieth century comes to show. Still, in the manner of a global insurance policy, a strategy for mitigation and adaptation is necessary. This strategy should be orientated to make possible the continuity, not the dismantling, of our current society. Neither a programme for ruralisation nor the low energy proposals aimed to scale back society into a network of self-sufficient communities are realistic (see Trainer 2010). They represent the comeback of green utopianism, although their usefulness in the debate of ideas should not be neglected: their defence of a radical transformation is necessary for achieving a moderate change. As Dyer writes: I like living in a high-energy civilisation, and I don't want to give it up. If it can be managed without causing a climate disaster, I would like everybody on the planet to live in wealthy societies that have the resources and the leisure to start looking after all citizens and not just the top dogs (Dyer 2008: 128). That is why climate change should "work for us", as Hulme and Neufeldt (2010) put it. It should be used for improving our societies through reform, not to pursue an unfeasible rupture based on a miraculous radical change in people's values (see Hourdequin 2010). It is more probable that people will follow a given virtuous inertia than to expect a sudden moral epiphany that clashes brutally with contemporary lifestyles - lifestyles that, despite the contempt that social science tends to show, people may well like. Therefore, in a nutshell, it is unlikely that citizens abandon their smartphones in order to embrace the charms of a more embedded rural life. It will simply not happen, cynical as it may sound. It also may sound Panglossian, since many today do not have enough money to acquire a telephone and the sources of dissatisfaction remain plentiful. It is in this connection that radical perspectives, namely, those wishing for some radical changes in the current sociopolitical organisation, are to be seen as the legitimate expression of unmet needs and desires deserving attention. This is true for global warming as it is true for other social problems. Yet we should not make mistakes when considering the sources of change. It is unlikely that the latter can be provoked by a sudden moral realisation on the part of relatively affluent citizens - it is more probable that a gradual evolution will take place, influenced by a multiplicity of factors, moral as well as economic and technological. On the other hand, a reformist and gradual approach to social change does not preclude the possibility that radical changes are the final outcome of an emergentist rather than a revolutionary process. Thus we should do the possible within the reasonable. But what does that mean? To begin with, it does not mean that the notion of sustainability presented so far has become invalidated. Unsurprisingly, classical environmentalists present climate change as the sudden and decisive proof that many old green positions happen to be right: nature is not abolished, human dominion of nature is not feasible, risks are everywhere. Therefore, we have been wrong and our worldview, together with our social organisation, must change. We cannot apply our old human solutions anymore: I am terrified by the hubris, the conceit, the arrogance implied by the words like "managing the planet' and 'stabilising the climate". ( ... ) Why are we, with our magnificent brains, so easily seduced by technocratic totalitarianism? (Tennekes in Hulme 2009: 312). However, we do not have any option other than trying to exert some degree of control over climate. After all, we find out what is going on with the climate because we try to exert such control (see Edwards 2010). Again, the latter should not be understood as a complete dominion, but rather as a sufficient, self-aware one. Mitigation policies are an attempt to influence climate - but I cannot see any arrogance in them. Furthermore, that we are able to discuss and devise strategies in the face of an abstract scientifically predicted threat should not be seen as a failure, but rather as a triumph of human reason. Similarly, the idea of an anthropogenic climate change does not demonstrate that nature has not ended, but rather comes to confirm in an unprecedented scale the merging of nature and society into the environment. As Leigh Glover puts it, "there is nothing natural left in the global atmosphere; humanity lives in and breathes an atmosphere that's an artifice of industrial activity and, consequently, the global climate is also now beyond nature" (Glover 2006: 254). If anything, climate change reinforces the case for a realistic sustainability. However, crucially, an advantage of climate change in this regard is that the kind of measures it demands - mitigation and adaptation in a wide scale should help to push the sustainability debate in the right direction. The reason is threefold. Firstly, climate change stresses by its very nature the issue of wellbeing and quality of life as much as that of pure survival. As the Hartwell Group (20 l 0) has underlined, climate change is not so much a problem to be solved, as a condition to live and cope with. Thus we should take advantage of the changes it demands in order to live better. That is, in healthier urban environments, in knowledge-based economies, with the best public education and health care for all (see Baker 2006: 3). Thus sustainability and well-being become linked. However, secondly, an adaptation based on the idea of well-being cannot succeed without economic growth. It is dubious that we can "manage without growth" (Victor 2008; see Jackson 2009), because tackling climate change and adapting to it is costly. Rich societies are better equipped to assimilate its impact than poor ones. As Nordhaus and Shellenberg note, environmentalism has always seen the economy as the cause rather than as the solution to ecological problems (Nordhaus and Shellenberg 2006). But, as a historic perspective shows, we can only be green while being rich. Neither the current understanding of economic growth nor the measurement of GDP for that reason should be exempt of criticism or amendment - changes can and ought to be made in order to reflect the environmental cost of economic activities. Yet the temptation to design people's well-being in a particular or detailed way should be avoided. It is rather a set of objective conditions of living under which subjective life-plans can be individually pursued that should be linked to climate change adaptation and hence to sustainability. For those conditions, which can be generally equated with the standards of current advanced societies, to be met, economic growth will remain necessary and desirable. Also because, thirdly, the idea that some sort of steady-state economy can be achieved and maintained is just a delusion. Sustainability must mirror the human condition: a dynamic type of development that by its very nature is open to further transformation (see Becker eta!. 1999: 6; Gallopin and Raskin 2002: 6). Although technological change and economic development can be orientated towards sustainability, it is wishful thinking to believe that they can just be stopped by decree. Governments must design markets and create the institutional conditions that eventually lead to a reasonable mitigation and to a successful adaptation, but they should do so without pre-determining a particular direction, although at the same time they must make sure that certain minimum targets are met (see Patt et a!. 20 10). It is all a matter of creating an institutional and economic inertia that pushes business and citizens in the direction of sustainability. To some extent, we live now in a transitional time. In fact, notwithstanding the key importance the institutional and economic drivers, it is probably the gradual cultural change induced by the current global debate on global warming that will accelerate the transition to a greener, yet liberal and open, society. In sum, the kind of approach that climate change demands coincides with the foundations of an open view of sustainability. That is why reframing environmentalism entails reframing climate change: freeing it from the rhetoric of doom and incorporating it into a narrative of social refinement. Certainly, saying that climate change should be seen as an opportunity instead of a threat sounds like a cliche. But it happens to be true - or, to be more accurate, it can be made true.

### Case

#### Coalitional macropolitics key to warming

Smith 2010 (Brendan Smith, co-founder of Labor Network for Sustainability, November 23, 2010, “Fighting Doom: The New Politics of Climate Change,” Common Dreams, http://www.commondreams.org/view/2010/11/23-1)

I admit I have arrived late to the party. Only recently have I begun to realize what others have known for decades: The climate crisis is not, at its core, an environmental issue. In fact it is not an "issue" at all; it is an existential threat to every human and community on the planet. It threatens every job, every economy in the world. It threatens the health of our children. It threatens our food and water supply. Climate change will continue to alter the world our species has known for the past three thousand years. As an oyster farmer and longtime political activist, the effects of climate change on my life will be neither distant nor impersonal. Rising greenhouse gases and ocean temperatures may well force me to abandon my 60-acre farm within the next forty years. From France to Washington state, oystermen are already seeing massive die-offs of seed oysters and the thinning shells science has long predicted. I can see the storm clouds and they are foretelling doom. But my political alter ego is oddly less pessimistic. Rather than triggering gloom, the climate crisis has surprisingly stirred up more hope than I have felt in twenty years as a progressive activist. After decades of progressive retreat it is a strange feeling. But I am haunted by the suspicion that this coming crisis may be the first opportunity we have had in generations to radically re-shape the political landscape and build a more just and sustainable society. The Power of Doom The modern progressive movement in the U.S. has traditionally grounded its organizing in the politics of identity and altruism. Organize an affected group -- minorities, gays, janitors or women -- and then ask the public at large to support the cause -- prison reform, gay marriage, labor rights, or abortion -- based on some cocktail of good will, liberal guilt, and moral persuasion. This strategy has been effective at times. But we have failed to bring these mini-movements together into a force powerful enough to enact broad-based social reform. It takes a lot of people to change society and our current strategy has left us small in numbers and weak in power. The highlights of my political life -- as opposed to oystering -- have been marked by winning narrow, often temporary, battles, but perennially losing the larger war. I see the results in every direction I look: growing poverty and unemployment, two wars, the rise of the right, declining unionization, the failure of the Senate's climate legislation and of Copenhagen, the wholesale domination of corporate interests. The list goes on and on. We have lost; it's time to admit our strategy has been too tepid and begin charting anew. This time can be different. What is so promising about the climate crisis is that because it is not an "issue" experienced by one disenfranchised segment of the population, it opens the opportunity for a new organizing calculus for progressives. Except for nuclear annihilation, humanity has never faced so universal a threat where all our futures are bound inextricably together. This universality provides the mortar of common interest required for movement building. We could literally knock on every door on the planet and find someone -- whether they know it or not -- who has a vital self-interest in averting the climate crisis by joining a movement for sustainability. With all of humanity facing doom, we can finally gather under one banner and count our future members not in the thousands but in the millions, even billions. But as former White House "Green Jobs Czar" Van Jones told the New Yorker in 2009, "The challenge is making this an everybody movement, so your main icons are Joe Six-Pack, Joe the Plumber, becoming Joe the Solar Guy, or that kid on the street corner putting down his handgun, picking up a caulk gun." The climate crisis is carrying us into uncharted waters and our political strategy needs to be directed toward making the climate movement an "everybody movement." Let me use a personal example. As an oysterman on Long Island Sound my way of life is threatened by rising greenhouse gases and ocean temperatures. If the climate crisis is not averted my oysters will die and my farm will be shuttered. Saving my livelihood requires that I politically engage at some level. Normally I would gather together my fellow oyster farmers to lobby state and federal officials and hold a protest or two. Maybe I would find a few coalitions to join. But we would remain small in number, wield little power, and our complaints about job loss would fall on largely unsympathetic ears in the face of so many suffering in so many ways. And what would we even petition our government to do about the problem? Buyouts and unemployment benefits? Re-training classes? Our oysters will still die and we will still lose our farms. To save our lives and livelihood we need to burrow down to the root of the problem: halting greenhouse gas emissions. And halting emissions requires joining a movement with the requisite power to dismantle the fossil fuel economy while building a green economy. To tackle such a large target requires my support for every nook and cranny effort to halt greenhouse gases and transition to a green economy. I need to gather up my fellow oyster farmers and link arms with students blocking new coal-fired power plants while fighting for just transition for coal workers; I need to join forces with other green workers around the country to demand government funding for green energy jobs, not more bank and corporate bailouts; I need to support labor movement efforts in China and elsewhere to climb out of poverty by going "green not dirty." I have a stake in these disparate battles not out of political altruism, but because my livelihood and community depend on stopping greenhouse gases and climate change. In other words, the hidden jewel of the climate crisis is that I need others and others need me. We are bound together by the same story of crisis and struggle. Some in the sustainability movement have been taking advantage of the "power of doom" by weaving together novel narratives and alliances around climate change. Groups in Kentucky are complementing their anti-mountain top removal efforts by organizing members of rural electrical co-ops into "New Power" campaigns to force a transition from fossil fuels to renewable power -- and create jobs in the process. Police unions in Canada, recognizing their members will be first responders as climate disasters hit, have reached out to unions in New Orleans to ensure the tragedies that followed Katrina are not repeated. Artists, chefs, farmers, bike mechanics, designers, and others are coalescing into a "green artisan movement" focused on building vibrant sustainable communities. Immigrant organizers, worried about the very real possibility of ever-worsening racial tensions triggered by millions of environmental refugees flooding in from neighboring countries, are educating their membership about why the climate crisis matters. My hope is that over the coming years we will be able to catalog increasing numbers of these tributaries of the climate crisis. Our power will not stem from a long list of issue concerns or sponsors at events -- we have tried that as recently as the October 2nd Washington D.C. "One Nation Working Together" march with little impact. Nor, with the rise of do-it-yourself organizing, will our power spring from top-down political parties of decades past. Instead oystermen like me, driven by the need to save our lives and livelihood, will storm the barricades with others facing the effects of the climate crisis. We will merge our mini-movements under a banner of common crisis, common vision and common struggle. We will be in this fight together and emerge as force not to be trifled with. This Time We Have an Alternative I am also guardedly optimistic because this time we have an alternative. My generation came of age after the fall of communism, and as a result, we have been raised in the midst of one-sided debate. We recognize that neoliberalism has ravaged society, but besides nostalgic calls for socialism, what has been the alternative? As globalization swept the globe, we demanded livable wages and better housing for the poorest in our communities; we fought sweatshops in China; we lobbied for new campaign finance and corporate governance laws. But these are mere patchwork reforms that fail to add up to a full-blown alternative to our current anti-government, free-market system. Never being able to fully picture the progressive alternative left me not fully trusting that progressive answers were viable solutions. But when I hear the proposed solutions to the climate crisis, the fog lifts. I can track the logic and envision the machinery of our alternative. And it sounds surprisingly like a common sense rebuttal to the current free-market mayhem: We face a global emergency of catastrophic proportions. Market fundamentalism will worsen rather than solve the crisis. Instead we need to re-direct our institutions and economic resources toward solving the crisis by replacing our carbon-based economy with a green sustainable economy. And by definition, for an economy to be sustainable it must addresses the longstanding suffering ordinary people face in their lives, ranging from unemployment and poverty to housing and healthcare. For years I have tossed from campaign to campaign, but the framework of our new progressive answer to the climate crisis now provides a roadmap for my political strategy. It helps chart my opponents -- coal companies and their political minions, for example -- as well as my diverse range of allies. It lays out my policy agenda, ranging from creating millions of new green jobs to building affordable green housing in low-income communities. I finally feel confident enough in my bearings to set sail. The Era of Crisis Politics While building a new green economy makes sense on paper, it is hard to imagine our entrenched political system yielding even modest progressive reform, let alone the wholesale re-formatting of the carbon economy. But I suspect this will change in the coming years, with our future governed by cascading political crises, rather than political stasis. We are likely entering an era of crisis politics whereby each escalating environmental disaster -- ranging from water shortages and hurricanes to wildfires and disease outbreaks -- will expose the impotence of our existing political institutions and economic system. In the next 40 years alone, scientists predict a state of permanent drought throughout the Southwest US and climate-linked disease deaths to double. As Danny Thompson, secretary-treasurer of the Nevada AFL-CIO, told the Las Vegas Review Journal, the ever-worsening water crisis could be "the end of the world" that could "turn us upside down, and I don't know how you recover from that." As if that is not enough, these crises will be played out in the context of a global economy spiraling out of control. Each hurricane, drought or recession will send opinion polls and politicians lurching from right to left and vice versa. Think of how quickly, however momentarily, the political debate pivoted in the wake of Katrina, the BP disaster, and the financial crisis. As White House chief of staff Rahm Emanuel famously said "Never let a serious crisis go to waste...It's an opportunity to do things you couldn't do before." While addressing the climate crisis requires radical solutions that cannot be broached in today's political climate, each disaster opens an opportunity to advance alternative agendas -- both for the left and right. While politicians debate modest technical fixes, ordinary people left desperate by floods, fires, droughts and other disasters will increasingly -- and angrily -- demand more fundamental reforms. While our current policy choices appear limited by polls and election results, in an era of crisis politics what appears unrealistic and radical before a storm may well appear as common sense reform in its wake. My generation has been raised in the politics of eternal dusk. Except for a passing ray of hope during the Obama campaign, our years have been marked by the failure of every political force in society -- whether it be political elites or social movement leaders -- to address the problems we face as a nation and world. They have left us spinning towards disaster. We can forge a better future. Climate-generated disasters will bring our doomed future into focus. The failure of political elites to adequately respond to these cascading crises will transform our political landscape and seed the ground for social movements. And if we prepare for the chaos and long battle ahead, our alternative vision will become a necessity rather than an impossibility. As a friend recently said to me, "God help us, I hope you're right."

#### Public advocacy of climate solutions key to change governmental policy - individual change insufficient

CAG 10—Climate Change Communication Advisory Group. Dr Adam Corner School of Psychology, Cardiff University - Dr Tom Crompton Change Strategist, WWF-UK - Scott Davidson Programme Manager, Global Action Plan - Richard Hawkins Senior Researcher, Public Interest Research Centre - Professor Tim Kasser, Psychology department, Knox College, Galesburg, Illinois, USA. - Dr Renee Lertzman, Center for Sustainable Processes & Practices, Portland State University, US. - Peter Lipman, Policy Director, Sustrans. - Dr Irene Lorenzoni, Centre for Environmental Risk, University of East Anglia. - George Marshall, Founding Director, Climate Outreach , Information Network - Dr Ciaran Mundy, Director, Transition Bristol - Dr Saffron O’Neil, Department of Resource Management and Geography, University of Melbourne, Australia. - Professor Nick Pidgeon, Director, Understanding Risk Research Group, School of Psychology, Cardiff University. - Dr Anna Rabinovich, School of Psychology, University of Exeter - Rosemary Randall, Founder and director of Cambridge Carbon Footprint - Dr Lorraine Whitmarsh, School of Psychology, Cardiff University & Visiting Fellow at the, Tyndall Centre for Climate Change Research. (Communicating climate change to mass public audience, http://pirc.info/downloads/communicating\_climate\_mass\_audiences.pdf)

This short advisory paper collates a set of recommendations about how best to shape mass public communications aimed at increasing concern about climate change and motivating commensurate behavioural changes.¶ Its focus is not upon motivating small private-sphere behavioural changes on a piece-meal basis. Rather, it marshals evidence about how best to motivate the ambitious and systemic behavioural change that is necessary – including, crucially, greater public engagement with the policy process (through, for example, lobbying decision-makers and elected representatives, or participating in demonstrations), as well as major lifestyle changes. ¶ Political leaders themselves have drawn attention to the imperative for more vocal public pressure to create the ‘political space’ for them to enact more ambitious policy interventions. 1 While this paper does not dismiss the value of individuals making small private-sphere behavioural changes (for example, adopting simple domestic energy efficiency measures) it is clear that such behaviours do not, in themselves, represent a proportional response to the challenge of climate change. As David MacKay, Chief Scientific Advisor to the UK Department of Energy and Climate change writes: “Don’t be distracted by the myth that ‘every little helps’. If everyone does a little, we’ll achieve only a little” (MacKay, 2008).¶ The task of campaigners and communicators from government, business and non-governmental organisations must therefore be to motivate both (i) widespread adoption of ambitious private-sphere behavioural changes; and (ii) widespread acceptance of – and indeed active demand for – ambitious new policy interventions.¶ Current public communication campaigns, as orchestrated by government, business and non-governmental organisations, are not achieving these changes. This paper asks: how should such communications be designed if they are to have optimal impact in motivating these changes? The response to this question will require fundamental changes in the ways that many climate change communication campaigns are currently devised and implemented. ¶ This advisory paper offers a list of principles that could be used to enhance the quality of communication around climate change communications. The authors are each engaged in continuously sifting the evidence from a range of sub-disciplines within psychology, and reflecting on the implications of this for improving climate change communications. Some of the organisations that we represent have themselves at times adopted approaches which we have both learnt from and critique in this paper – so some of us have first hand experience of the need for on-going improvement in the strategies that we deploy. ¶ The changes we advocate will be challenging to enact – and will require vision and leadership on the part of the organisations adopting them. But without such vision and leadership, we do not believe that public communication campaigns on climate change will create the necessary behavioural changes – indeed, there is a profound risk that many of today’s campaigns will actually prove counter-productive. ¶ Seven Principles¶ 1. Move Beyond Social Marketing¶ We believe that too little attention is paid to the understanding that psychologists bring to strategies for motivating change, whilst undue faith is often placed in the application of marketing strategies to ‘sell’ behavioural changes. Unfortunately, in the context of ambitious pro-environmental behaviour, such strategies seem unlikely to motivate systemic behavioural change.¶ Social marketing is an effective way of achieving a particular behavioural goal – dozens of practical examples in the field of health behaviour attest to this. Social marketing is really more of a framework for designing behaviour change programmes than a behaviour change programme - it offers a method of maximising the success of a specific behavioural goal. Darnton (2008) has described social marketing as ‘explicitly transtheoretical’, while Hastings (2007), in a recent overview of social marketing, claimed that there is no theory of social marketing. Rather, it is a ‘what works’ philosophy, based on previous experience of similar campaigns and programmes. Social marketing is flexible enough to be applied to a range of different social domains, and this is undoubtedly a fundamental part of its appeal.¶ However, social marketing’s 'what works' status also means that it is agnostic about the longer term, theoretical merits of different behaviour change strategies, or the cultural values that specific campaigns serve to strengthen. Social marketing dictates that the most effective strategy should be chosen, where effective means ‘most likely to achieve an immediate behavioural goal’. ¶ This means that elements of a behaviour change strategy designed according to the principles of social marketing may conflict with other, broader goals. What if the most effective way of promoting pro-environmental behaviour ‘A’ was to pursue a strategy that was detrimental to the achievement of long term pro-environmental strategy ‘Z’? The principles of social marketing have no capacity to resolve this conflict – they are limited to maximising the success of the immediate behavioural programme. This is not a flaw of social marketing – it was designed to provide tools to address specific behavioural problems on a piecemeal basis. But it is an important limitation, and one that has significant implications if social marketing techniques are used to promote systemic behavioural change and public engagement on an issue like climate change. ¶ 2. Be honest and forthright about the probable impacts of climate change, and the scale of the challenge we confront in avoiding these. But avoid deliberate attempts to provoke fear or guilt. ¶ There is no merit in ‘dumbing down’ the scientific evidence that the impacts of climate change are likely to be severe, and that some of these impacts are now almost certainly unavoidable. Accepting the impacts of climate change will be an important stage in motivating behavioural responses aimed at mitigating the problem. However, deliberate attempts to instil fear or guilt carry considerable risk. ¶ Studies on fear appeals confirm the potential for fear to change attitudes or verbal expressions of concern, but often not actions or behaviour (Ruiter et al., 2001). The impact of fear appeals is context - and audience - specific; for example, for those who do not yet realise the potentially ‘scary’ aspects of climate change, people need to first experience themselves as vulnerable to the risks in some way in order to feel moved or affected (Das et al, 2003; Hoog et al, 2005). As people move towards contemplating action, fear appeals can help form a behavioural intent, providing an impetus or spark to ‘move’ from; however such appeals must be coupled with constructive information and support to reduce the sense of danger (Moser, 2007). The danger is that fear can also be disempowering – producing feelings of helplessness, remoteness and lack of control (O’Neill and Nicholson-Cole, 2009). Fear is likely to trigger ‘barriers to engagement’, such as denial2 (Stoll-Kleemann et al., 2001; Weber, 2006; Moser and Dilling, 2007; Lorenzoni, Nicholson-Cole & Whitmarsh, 2007). The location of fear in a message is also relevant; it works better when placed first for those who are inclined to follow the advice, but better second for those who aren't (Bier, 2001).¶ Similarly, studies have shown that guilt can play a role in motivating people to take action but can also function to stimulate defensive mechanisms against the perceived threat or challenge to one’s sense of identity (as a good, moral person). In the latter case, behaviours may be left untouched (whether driving a SUV or taking a flight) as one defends against any feelings of guilt or complicity through deployment of a range of justifications for the behaviour (Ferguson & Branscombe, 2010). ¶ Overall, there is a need for emotionally balanced representations of the issues at hand. This will involve acknowledging the ‘affective reality’ of the situation, e.g. “We know this is scary and overwhelming, but many of us feel this way and we are doing something about it”.¶ 3. Be honest and forthright about the impacts of mitigating and adapting to climate change for current lifestyles, and the ‘loss’ - as well as the benefits - that these will entail. Narratives that focus exclusively on the ‘up-side’ of climate solutions are likely to be unconvincing. While narratives about the future impacts of climate change may highlight the loss of much that we currently hold to be dear, narratives about climate solutions frequently ignore the question of loss. If the two are not addressed concurrently, fear of loss may be ‘split off’ and projected into the future, where it is all too easily denied. This can be dangerous, because accepting loss is an important step towards working through the associated emotions, and emerging with the energy and creativity to respond positively to the new situation (Randall, 2009). However, there are plenty of benefits (besides the financial ones) of a low-carbon lifestyle e.g., health, community/social interaction - including the ‘intrinsic' goals mentioned below. It is important to be honest about both the losses and the benefits that may be associated with lifestyle change, and not to seek to separate out one from the other.¶ 3a. Avoid emphasis upon painless, easy steps. ¶ Be honest about the limitations of voluntary private-sphere behavioural change, and the need for ambitious new policy interventions that incentivise such changes, or that regulate for them. People know that the scope they have, as individuals, to help meet the challenge of climate change is extremely limited. For many people, it is perfectly sensible to continue to adopt high-carbon lifestyle choices whilst simultaneously being supportive of government interventions that would make these choices more difficult for everyone. ¶ The adoption of small-scale private sphere behavioural changes is sometimes assumed to lead people to adopt ever more difficult (and potentially significant) behavioural changes. The empirical evidence for this ‘foot-in-thedoor’ effect is highly equivocal. Some studies detect such an effect; others studies have found the reverse effect (whereby people tend to ‘rest on their laurels’ having adopted a few simple behavioural changes - Thogersen and Crompton, 2009). Where attention is drawn to simple and painless privatesphere behavioural changes, these should be urged in pursuit of a set of intrinsic goals (that is, as a response to people’s understanding about the contribution that such behavioural change may make to benefiting their friends and family, their community, the wider world, or in contributing to their growth and development as individuals) rather than as a means to achieve social status or greater financial success. Adopting behaviour in pursuit of intrinsic goals is more likely to lead to ‘spillover’ into other sustainable behaviours (De Young, 2000; Thogersen and Crompton, 2009).¶ People aren’t stupid: they know that if there are wholesale changes in the global climate underway, these will not be reversed merely through checking their tyre pressures or switching their TV off standby. An emphasis upon simple and painless steps suppresses debate about those necessary responses that are less palatable – that will cost people money, or that will infringe on cherished freedoms (such as to fly). Recognising this will be a key step in accepting the reality of loss of aspects of our current lifestyles, and in beginning to work through the powerful emotions that this will engender (Randall, 2009). ¶ 3b. Avoid over-emphasis on the economic opportunities that mitigating, and adapting to, climate change may provide. ¶ There will, undoubtedly, be economic benefits to be accrued through investment in new technologies, but there will also be instances where the economic imperative and the climate change adaptation or mitigation imperative diverge, and periods of economic uncertainty for many people as some sectors contract. It seems inevitable that some interventions will have negative economic impacts (Stern, 2007).¶ Undue emphasis upon economic imperatives serves to reinforce the dominance, in society, of a set of extrinsic goals (focussed, for example, on financial benefit). A large body of empirical research demonstrates that these extrinsic goals are antagonistic to the emergence of pro-social and proenvironmental concern (Crompton and Kasser, 2009).¶ 3c. Avoid emphasis upon the opportunities of ‘green consumerism’ as a response to climate change.¶ As mentioned above (3b), a large body of research points to the antagonism between goals directed towards the acquisition of material objects and the emergence of pro-environmental and pro-social concern (Crompton and Kasser, 2009). Campaigns to ‘buy green’ may be effective in driving up sales of particular products, but in conveying the impression that climate change can be addressed by ‘buying the right things’, they risk undermining more difficult and systemic changes. A recent study found that people in an experiment who purchased ‘green’ products acted less altruistically on subsequent tasks (Mazar & Zhong, 2010) – suggesting that small ethical acts may act as a ‘moral offset’ and licence undesirable behaviours in other domains. This does not mean that private-sphere behaviour changes will always lead to a reduction in subsequent pro-environmental behaviour, but it does suggest that the reasons used to motivate these changes are critically important. Better is to emphasise that ‘every little helps a little’ – but that these changes are only the beginning of a process that must also incorporate more ambitious private-sphere change and significant collective action at a political level.¶ 4. Empathise with the emotional responses that will be engendered by a forthright presentation of the probable impacts of climate change. ¶ Belief in climate change and support for low-carbon policies will remain fragile unless people are emotionally engaged. We should expect people to be sad or angry, to feel guilt or shame, to yearn for that which is lost or to search for more comforting answers (Randall, 2009). Providing support and empathy in working through the painful emotions of 'grief' for a society that must undergo changes is a prerequisite for subsequent adaptation to new circumstances.¶ Without such support and empathy, it is more likely that people will begin to deploy a range of maladaptive ‘coping strategies’, such as denial of personal responsibility, blaming others, or becoming apathetic (Lertzman, 2008). An audience should not be admonished for deploying such strategies – this would in itself be threatening, and could therefore harden resistance to positive behaviour change (Miller and Rolnick, 2002). The key is not to dismiss people who exhibit maladaptive coping strategies, but to understand how they can be made more adaptive. People who feel socially supported will be more likely to adopt adaptive emotional responses - so facilitating social support for proenvironmental behaviour is crucial.¶ 5. Promote pro-environmental social norms and harness the power of social networks¶ One way of bridging the gap between private-sphere behaviour changes and collective action is the promotion of pro-environmental social norms. Pictures and videos of ordinary people (‘like me’) engaging in significant proenvironmental actions are a simple and effective way of generating a sense of social normality around pro-environmental behaviour (Schultz, Nolan, Cialdini, Goldstein and Griskevicius, 2007). There are different reasons that people adopt social norms, and encouraging people to adopt a positive norm simply to ‘conform’, to avoid a feeling of guilt, or for fear of not ‘fitting in’ is likely to produce a relatively shallow level of motivation for behaviour change. Where social norms can be combined with ‘intrinsic’ motivations (e.g. a sense of social belonging), they are likely to be more effective and persistent.¶ Too often, environmental communications are directed to the individual as a single unit in the larger social system of consumption and political engagement. This can make the problems feel too overwhelming, and evoke unmanageable levels of anxiety. Through the enhanced awareness of what other people are doing, a strong sense of collective purpose can be engendered. One factor that is likely to influence whether adaptive or maladaptive coping strategies are selected in response to fear about climate change is whether people feel supported by a social network – that is, whether a sense of ‘sustainable citizenship’ is fostered. The efficacy of groupbased programmes at promoting pro-environmental behaviour change has been demonstrated on numerous occasions – and participants in these projects consistently point to a sense of mutual learning and support as a key reason for making and maintaining changes in behaviour (Nye and Burgess, 2008). There are few influences more powerful than an individual’s social network. Networks are instrumental not just in terms of providing social support, but also by creating specific content of social identity – defining what it means to be “us”. If environmental norms are incorporated at this level (become defining for the group) they can result in significant behavioural change (also reinforced through peer pressure).¶ Of course, for the majority of people, this is unlikely to be a network that has climate change at its core. But social networks – Trade Unions, Rugby Clubs, Mother & Toddler groups – still perform a critical role in spreading change through society. Encouraging and supporting pre-existing social networks to take ownership of climate change (rather than approach it as a problem for ‘green groups’) is a critical task. As well as representing a crucial bridge between individuals and broader society, peer-to-peer learning circumnavigates many of the problems associated with more ‘top down’ models of communication – not least that government representatives are perceived as untrustworthy (Poortinga & Pidgeon, 2003). Peer-to-peer learning is more easily achieved in group-based dialogue than in designing public information films: But public information films can nonetheless help to establish social norms around community-based responses to the challenges of climate change, through clear visual portrayals of people engaging collectively in the pro-environmental behaviour.¶ The discourse should be shifted increasingly from ‘you’ to ‘we’ and from ‘I’ to ‘us’. This is starting to take place in emerging forms of community-based activism, such as the Transition Movement and Cambridge Carbon Footprint’s ‘Carbon Conversations’ model – both of which recognize the power of groups to help support and maintain lifestyle and identity changes. A nationwide climate change engagement project using a group-based behaviour change model with members of Trade Union networks is currently underway, led by the Climate Outreach and Information Network. These projects represent a method of climate change communication and engagement radically different to that typically pursued by the government – and may offer a set of approaches that can go beyond the limited reach of social marketing techniques.¶ One potential risk with appeals based on social norms is that they often contain a hidden message. So, for example, a campaign that focuses on the fact that too many people take internal flights actually contains two messages – that taking internal flights is bad for the environment, and that lots of people are taking internal flights. This second message can give those who do not currently engage in that behaviour a perverse incentive to do so, and campaigns to promote behaviour change should be very careful to avoid this. The key is to ensure that information about what is happening (termed descriptive norms), does not overshadow information about what should be happening (termed injunctive norms). ¶ 6. Think about the language you use, but don’t rely on language alone¶ A number of recent publications have highlighted the results of focus group research and talk-back tests in order to ‘get the language right’ (Topos Partnership, 2009; Western Strategies & Lake Research Partners, 2009), culminating in a series of suggestions for framing climate-change communications. For example, these two studies led to the suggestions that communicators should use the term ‘global warming’ or ‘our deteriorating atmosphere’, respectively, rather than ‘climate change’. Other research has identified systematic differences in the way that people interpret the terms ‘climate change’ and ‘global warming’, with ‘global warming’ perceived as more emotionally engaging than ‘climate change’ (Whitmarsh, 2009).¶ Whilst ‘getting the language right’ is important, it can only play a small part in a communication strategy. More important than the language deployed (i.e. ‘conceptual frames') are what have been referred to by some cognitive linguists as 'deep frames'. Conceptual framing refers to catchy slogans and clever spin (which may or may not be honest). At a deeper level, framing refers to forging the connections between a debate or public policy and a set of deeper values or principles. Conceptual framing (crafting particular messages focussing on particular issues) cannot work unless these messages resonate with a set of long-term deep frames.¶ Policy proposals which may at the surface level seem similar (perhaps they both set out to achieve a reduction in environmental pollution) may differ importantly in terms of their deep framing. For example, putting a financial value on an endangered species, and building an economic case for their conservation ‘commodifies’ them, and makes them equivalent (at the level of deep frames) to other assets of the same value (a hotel chain, perhaps). This is a very different frame to one that attempts to achieve the same conservation goals through the ascription of intrinsic value to such species – as something that should be protected in its own right. Embedding particular deep frames requires concerted effort (Lakoff, 2009), but is the beginning of a process that can build a broad, coherent cross-departmental response to climate change from government.¶ 7. Encourage public demonstrations of frustration at the limited pace of government action¶ Private-sphere behavioural change is not enough, and may even at times become a diversion from the more important process of bringing political pressure to bear on policy-makers. The importance of public demonstrations of frustration at both the lack of political progress on climate change and the barriers presented by vested interests is widely recognised – including by government itself. Climate change communications, including government communication campaigns, should work to normalise public displays of frustration with the slow pace of political change. Ockwell et al (2009) argued that communications can play a role in fostering demand for - as well as acceptance of - policy change. Climate change communication could (and should) be used to encourage people to demonstrate (for example through public demonstrations) about how they would like structural barriers to behavioural/societal change to be removed.

#### Unchecked warming causes planetary extinction

Brandenburg and Paxson 1999 (John Brandenburg, PhD, physicist and professor, and Monica Rix Paxson, distinguished science writer, “Dead Mars, Dying Earth,” google books)

One can imagine a scenario for global catastrophe that runs similarly. If the human race adopted a mentality like the crew aboard the ship Californian—as some argue, saying that both ozone hole and global warming will disappear if statistics are properly examined, and we need do nothing about either—the following scenario could occur. The earth goes on its merry way and fossil fuels continue to power it. Rather than making painful or politically difficult choices, such as investing in fusion research or enacting a rigorous plan of conserving, the industrial world chooses to muddle through the temperature climb. Let’s imagine that America and Europe are too worried about economic dislocation to change course. The ozone hole expands, driven by a monstrous synergy with global warming that puts more catalytic ice crystals into the stratosphere, but this affects the far north and south and not the major nations’ heartlands. The seas rise, the tropics roast but the media networks no longer cover it. The Amazon rainforest becomes the Amazon desert. Oxygen levels fall, but profits rise for those who can provide it in bottles. An equatorial high pressure zone forms, forcing drought in central Africa and Brazil, the Nile dries up and the monsoons fail. Then inevitably, at some unlucky point in time, a major unexpected event occurs—a major volcanic eruption, a sudden and dramatic shift in ocean circulation or a large asteroid impact (those who think freakish accidents do not occur have paid little attention to life or Mars), or a nuclear war starts between Pakistan and India and escalates to involve China and Russia… Suddenly the gradual climb in global temperatures goes on a mad excursion as the oceans warm and release large amounts of dissolved carbon dioxide from their lower depths into the atmosphere. Oxygen levels go down precipitously as oxygen replaces lost oceanic carbon dioxide. Asthma cases double and then double again. Now a third of the world fears breathing. As the oceans dump carbon dioxide, the greenhouse effect increases, which further warms the oceans, causing them to dump even more carbon. Because of the heat, plants die and burn in enormous fires which release more carbon dioxide, and the oceans evaporate, adding more water vapor to the greenhouse. Soon, we are in what is termed a runaway greenhouse effect, as happened to Venus eons ago. The last two surviving scientists inevitably argue, one telling the other, “See! I told you the missing sink was in the ocean!” Earth, as we know it, dies. After this Venusian excursion in temperatures, the oxygen disappears into the soil, the oceans evaporate and are lost and the dead earth loses its ozone layer completely. Earth is too far from the Sun for it to be the second Venus for long. Its atmosphere is slowly lost—as is its water—because of ultraviolet bombardment breaking up all the molecules apart from carbon dioxide. As the atmosphere becomes thin the Earth becomes colder. For a short while temperatures are nearly normal, but the ultraviolet sears any life that tries to make a comeback. The carbon dioxide thins out to form a thin veneer with a few whispy clouds and dust devils. Earth becomes the second Mars—red, desolate, with perhaps a few hardy microbes surviving.

#### Solves environment

Zey 1997 (Michael Zey, Professor of Management at Montclair State University, 1997, The Futurist, “The Macroindustrial Era: A New Age of Abundance and Prosperity”, March/April, http://www.zey.com/Featured\_2.htm)

This brings me to one of my major points about the necessity of growth. A recurring criticism of growth - be it industrial, economic, or technological - centers around its negative consequences. A good example of this is the tendency of economic and industrial growth to generate pollution. However, I contend that growth invariably provides solutions to any problems it introduces. The following examples will illustrate my point. Although economic growth can initially lead to such problems as pollution and waste, studies show that, after a country achieves a certain level of prosperity, the pendulum begins to swing back toward cleaner air and water. In fact, once a nation's per capita income rises to about $4,000 (in 1993 dollars), it produces less of some pollutants per capita. The reason for this is quite simple: Such a nation can now afford technologies such as catalytic converters and sewage systems that treat and eliminate a variety of wastes. According to Norio Yamamoto, research director of the Mitsubishi Research Institute, "We consider any kind of environmental damage to result from mismanagement of the economy." He claims that the pollution problems of poorer regions such as eastern Europe can be traced largely to their economic woes. Hence he concludes that, in order to ensure environmental safety, "we need a sound economy on a global basis." Thus, the answer to pollution, the supposed outgrowth of progress, ought to be more economic growth. Such economic growth can be accelerated by any number of actions: the transfer of technology, the sharing of scientific know-how, and economic investment. The World Bank estimates that every dollar invested in developing countries will grow to $100 in 50 years. As their wealth increases, these countries can take all the necessary steps to invest in pollution-free cars, catalytic converters, and other pollution-free technologies, such as the cleanest of all current large-scale energy sources, nuclear power. They can also afford to invest in bioremediation - the utilization of viruses to literally eat such impurities as oil spills and toxic waste. Russia is actively growing and exporting microorganisms that eat radioactive and metallic wastes from such sources as uranium, plutonium, magnesium, and silver.

#### Tech solves

Huggins 2012 (Laura E. Huggins, research fellow at the Hoover Institution and director of development at PERC—the Property and Environment Research Center—a think tank in Bozeman, Montana, that focuses on market solutions to environmental problems, 2012 “A Doom Deferred” http://www.hoover.org/publications/hoover-digest/article/105756)

The authors of the Times op-ed also wrote that “the effects of overpopulation play a part in practically every daily report of mass human calamity.” Floods, for example, “inundate more homes as populations expand into floodplains. Such extreme events are stoked by climate change, fueled by increasing carbon emissions from an expanding global population.” These modern-day predictions are in stark contrast to claims in the same vein from the 1970s. In a popular 1970 speech at Swarthmore College, for example, well-known ecologist Kenneth Watt said, “If present trends continue, the world will be about four degrees colder for the global mean temperature in 1990, but 11 degrees colder in the year 2000. This is about twice what it would take to put us into an ice age.” Time has not been gentle with such prophecies. Four decades later, the world hasn’t come to an end. Most measures of human welfare show the Earth’s population is better off today than at any other time in human history. Life expectancy is increasing, per-capita income is rising, and the air we breathe and the water we drink are cleaner. And concerns about climate change have shifted from cooling to warming since the 1970s. Given past trends, we are right to deny doom-and-gloom claims such as this one in Harte and Ehrlich’s article: “Perpetual growth is the creed of a cancer cell, not a sustainable human society.” New ideas and technologies proliferate at a much faster rate than population. New ideas and technologies proliferate at a much faster rate than population. They depend on individuals who are free to pursue their own interests and innovate with few constraints. As Stanford economist Paul Romer put it, “Every generation has perceived the limits to growth that finite resources and undesirable side effects would pose if no new recipes or ideas were discovered. And every generation has underestimated the potential for finding new recipes and ideas. We consistently fail to grasp how many ideas remain to be discovered. Possibilities do not add up; they multiply.”

#### Micropolitical actors won’t get on board

Barnhizer 2006 (David Barnhizer, Professor of Law at Ohio State University, Articles Editor of the Ohio State Law Journal and then served as a Reginald Heber Smith Community Lawyer Fellow in Colorado Springs Legal Services Office, a Ford Urban Law Fellow, and a Clinical Teaching Fellow at the Harvard Law School, Senior Advisor to the International Program of the Natural Resources Defense Council, a Senior Fellow for Earth Summit Watch, and General Counsel for the Shrimp Tribunal. He has served as Executive Director of The Year 2000 Committee, 2006 “waking from sustainability’s “impossible dream”” Georgetown environmental law review)

Devotees of sustainability pin their hopes on an awakening by an enlightened populace that will rise up and insist that business and government behave in ways that reflect the idea that "[a] sustainable society is one that can persist over generations, one that is far-seeing enough, flexible enough, and wise enough not to undermine either its physical or its social systems of support."81 This awakening is not going to happen. There will never be a populist revolution in the way humans value the environment, social justice, and other matters of moral consequence. We frequently "talk the talk," but rarely "walk the walk."82 This discrepancy is partly an individual failure, but it is even more a result of the powerful forces that operate within our culture. Residents of Western cultures are shaped by the system in which they live. They will never possess either the clarity of agenda or the political will essential to a coherent and coordinated shift in behavior due to a combination of ignorance, greed, sloth, and inundation by political and consumerist propaganda. This combination means there will be no values shift welling up from the people and demanding the transformation of our systems of production and resource use.

#### Elites say no

Barnhizer 2006 David Barnhizer (Professor of Law at Ohio State University, Articles Editor of the Ohio State Law Journal and then served as a Reginald Heber Smith Community Lawyer Fellow in Colorado Springs Legal Services Office, a Ford Urban Law Fellow, and a Clinical Teaching Fellow at the Harvard Law School, Senior Advisor to the International Program of the Natural Resources Defense Council, a Senior Fellow for Earth Summit Watch, and General Counsel for the Shrimp Tribunal. He has served as Executive Director of The Year 2000 Committee) 2006 “waking from sustainability’s “impossible dream”” Georgetown environmental law review

My point should not be taken as a lack of concern with the kinds of conditions described by those who warn about impending catastrophes. We face a wrenching future, just as billions of people have been forced to deal with a wrenching past in terms of the tenuous quality of life they endure on a daily basis. The concern of this essay is with how we can best deal with what is within our power to influence or change and how to achieve the best possible outcomes within the context of the existing systems available to us. Because the perspectives of our leaders are short-term, and conditions appear relatively normal almost to the moment at which the so-called "chaos effects" manifest and the systems on which we rely fall apart, it is difficult to the point of improbability to mobilize the political power to make changes at an early enough point where the consequences of our actions can be avoided entirely or at least mitigated significantly.53 This situation is made more difficult by the fact that many key figures and institutions are benefiting from the existing arrangements. Even though their actions are ultimately responsible for harm to others, they refuse to surrender what they consider their rightful gains. Not only do they seek to reap their economic and political profits, they undermine others' efforts to avoid the impending harm. Those who warn of collapse and disaster are accused of being doomsayers and Cassandras.

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### Macropolitics Good

#### Public advocacy of climate solutions key to change governmental policy - individual change insufficient

CAG 10—Climate Change Communication Advisory Group. Dr Adam Corner School of Psychology, Cardiff University - Dr Tom Crompton Change Strategist, WWF-UK - Scott Davidson Programme Manager, Global Action Plan - Richard Hawkins Senior Researcher, Public Interest Research Centre - Professor Tim Kasser, Psychology department, Knox College, Galesburg, Illinois, USA. - Dr Renee Lertzman, Center for Sustainable Processes & Practices, Portland State University, US. - Peter Lipman, Policy Director, Sustrans. - Dr Irene Lorenzoni, Centre for Environmental Risk, University of East Anglia. - George Marshall, Founding Director, Climate Outreach , Information Network - Dr Ciaran Mundy, Director, Transition Bristol - Dr Saffron O’Neil, Department of Resource Management and Geography, University of Melbourne, Australia. - Professor Nick Pidgeon, Director, Understanding Risk Research Group, School of Psychology, Cardiff University. - Dr Anna Rabinovich, School of Psychology, University of Exeter - Rosemary Randall, Founder and director of Cambridge Carbon Footprint - Dr Lorraine Whitmarsh, School of Psychology, Cardiff University & Visiting Fellow at the, Tyndall Centre for Climate Change Research. (Communicating climate change to mass public audience, http://pirc.info/downloads/communicating\_climate\_mass\_audiences.pdf)

This short advisory paper collates a set of recommendations about how best to shape mass public communications aimed at increasing concern about climate change and motivating commensurate behavioural changes.¶ Its focus is not upon motivating small private-sphere behavioural changes on a piece-meal basis. Rather, it marshals evidence about how best to motivate the ambitious and systemic behavioural change that is necessary – including, crucially, greater public engagement with the policy process (through, for example, lobbying decision-makers and elected representatives, or participating in demonstrations), as well as major lifestyle changes. ¶ Political leaders themselves have drawn attention to the imperative for more vocal public pressure to create the ‘political space’ for them to enact more ambitious policy interventions. 1 While this paper does not dismiss the value of individuals making small private-sphere behavioural changes (for example, adopting simple domestic energy efficiency measures) it is clear that such behaviours do not, in themselves, represent a proportional response to the challenge of climate change. As David MacKay, Chief Scientific Advisor to the UK Department of Energy and Climate change writes: “Don’t be distracted by the myth that ‘every little helps’. If everyone does a little, we’ll achieve only a little” (MacKay, 2008).¶ The task of campaigners and communicators from government, business and non-governmental organisations must therefore be to motivate both (i) widespread adoption of ambitious private-sphere behavioural changes; and (ii) widespread acceptance of – and indeed active demand for – ambitious new policy interventions.¶ Current public communication campaigns, as orchestrated by government, business and non-governmental organisations, are not achieving these changes. This paper asks: how should such communications be designed if they are to have optimal impact in motivating these changes? The response to this question will require fundamental changes in the ways that many climate change communication campaigns are currently devised and implemented. ¶ This advisory paper offers a list of principles that could be used to enhance the quality of communication around climate change communications. The authors are each engaged in continuously sifting the evidence from a range of sub-disciplines within psychology, and reflecting on the implications of this for improving climate change communications. Some of the organisations that we represent have themselves at times adopted approaches which we have both learnt from and critique in this paper – so some of us have first hand experience of the need for on-going improvement in the strategies that we deploy. ¶ The changes we advocate will be challenging to enact – and will require vision and leadership on the part of the organisations adopting them. But without such vision and leadership, we do not believe that public communication campaigns on climate change will create the necessary behavioural changes – indeed, there is a profound risk that many of today’s campaigns will actually prove counter-productive. ¶ Seven Principles¶ 1. Move Beyond Social Marketing¶ We believe that too little attention is paid to the understanding that psychologists bring to strategies for motivating change, whilst undue faith is often placed in the application of marketing strategies to ‘sell’ behavioural changes. Unfortunately, in the context of ambitious pro-environmental behaviour, such strategies seem unlikely to motivate systemic behavioural change.¶ Social marketing is an effective way of achieving a particular behavioural goal – dozens of practical examples in the field of health behaviour attest to this. Social marketing is really more of a framework for designing behaviour change programmes than a behaviour change programme - it offers a method of maximising the success of a specific behavioural goal. Darnton (2008) has described social marketing as ‘explicitly transtheoretical’, while Hastings (2007), in a recent overview of social marketing, claimed that there is no theory of social marketing. Rather, it is a ‘what works’ philosophy, based on previous experience of similar campaigns and programmes. Social marketing is flexible enough to be applied to a range of different social domains, and this is undoubtedly a fundamental part of its appeal.¶ However, social marketing’s 'what works' status also means that it is agnostic about the longer term, theoretical merits of different behaviour change strategies, or the cultural values that specific campaigns serve to strengthen. Social marketing dictates that the most effective strategy should be chosen, where effective means ‘most likely to achieve an immediate behavioural goal’. ¶ This means that elements of a behaviour change strategy designed according to the principles of social marketing may conflict with other, broader goals. What if the most effective way of promoting pro-environmental behaviour ‘A’ was to pursue a strategy that was detrimental to the achievement of long term pro-environmental strategy ‘Z’? The principles of social marketing have no capacity to resolve this conflict – they are limited to maximising the success of the immediate behavioural programme. This is not a flaw of social marketing – it was designed to provide tools to address specific behavioural problems on a piecemeal basis. But it is an important limitation, and one that has significant implications if social marketing techniques are used to promote systemic behavioural change and public engagement on an issue like climate change. ¶ 2. Be honest and forthright about the probable impacts of climate change, and the scale of the challenge we confront in avoiding these. But avoid deliberate attempts to provoke fear or guilt. ¶ There is no merit in ‘dumbing down’ the scientific evidence that the impacts of climate change are likely to be severe, and that some of these impacts are now almost certainly unavoidable. Accepting the impacts of climate change will be an important stage in motivating behavioural responses aimed at mitigating the problem. However, deliberate attempts to instil fear or guilt carry considerable risk. ¶ Studies on fear appeals confirm the potential for fear to change attitudes or verbal expressions of concern, but often not actions or behaviour (Ruiter et al., 2001). The impact of fear appeals is context - and audience - specific; for example, for those who do not yet realise the potentially ‘scary’ aspects of climate change, people need to first experience themselves as vulnerable to the risks in some way in order to feel moved or affected (Das et al, 2003; Hoog et al, 2005). As people move towards contemplating action, fear appeals can help form a behavioural intent, providing an impetus or spark to ‘move’ from; however such appeals must be coupled with constructive information and support to reduce the sense of danger (Moser, 2007). The danger is that fear can also be disempowering – producing feelings of helplessness, remoteness and lack of control (O’Neill and Nicholson-Cole, 2009). Fear is likely to trigger ‘barriers to engagement’, such as denial2 (Stoll-Kleemann et al., 2001; Weber, 2006; Moser and Dilling, 2007; Lorenzoni, Nicholson-Cole & Whitmarsh, 2007). The location of fear in a message is also relevant; it works better when placed first for those who are inclined to follow the advice, but better second for those who aren't (Bier, 2001).¶ Similarly, studies have shown that guilt can play a role in motivating people to take action but can also function to stimulate defensive mechanisms against the perceived threat or challenge to one’s sense of identity (as a good, moral person). In the latter case, behaviours may be left untouched (whether driving a SUV or taking a flight) as one defends against any feelings of guilt or complicity through deployment of a range of justifications for the behaviour (Ferguson & Branscombe, 2010). ¶ Overall, there is a need for emotionally balanced representations of the issues at hand. This will involve acknowledging the ‘affective reality’ of the situation, e.g. “We know this is scary and overwhelming, but many of us feel this way and we are doing something about it”.¶ 3. Be honest and forthright about the impacts of mitigating and adapting to climate change for current lifestyles, and the ‘loss’ - as well as the benefits - that these will entail. Narratives that focus exclusively on the ‘up-side’ of climate solutions are likely to be unconvincing. 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Avoid emphasis upon painless, easy steps. ¶ Be honest about the limitations of voluntary private-sphere behavioural change, and the need for ambitious new policy interventions that incentivise such changes, or that regulate for them. People know that the scope they have, as individuals, to help meet the challenge of climate change is extremely limited. For many people, it is perfectly sensible to continue to adopt high-carbon lifestyle choices whilst simultaneously being supportive of government interventions that would make these choices more difficult for everyone. ¶ The adoption of small-scale private sphere behavioural changes is sometimes assumed to lead people to adopt ever more difficult (and potentially significant) behavioural changes. The empirical evidence for this ‘foot-in-thedoor’ effect is highly equivocal. Some studies detect such an effect; others studies have found the reverse effect (whereby people tend to ‘rest on their laurels’ having adopted a few simple behavioural changes - Thogersen and Crompton, 2009). Where attention is drawn to simple and painless privatesphere behavioural changes, these should be urged in pursuit of a set of intrinsic goals (that is, as a response to people’s understanding about the contribution that such behavioural change may make to benefiting their friends and family, their community, the wider world, or in contributing to their growth and development as individuals) rather than as a means to achieve social status or greater financial success. Adopting behaviour in pursuit of intrinsic goals is more likely to lead to ‘spillover’ into other sustainable behaviours (De Young, 2000; Thogersen and Crompton, 2009).¶ People aren’t stupid: they know that if there are wholesale changes in the global climate underway, these will not be reversed merely through checking their tyre pressures or switching their TV off standby. An emphasis upon simple and painless steps suppresses debate about those necessary responses that are less palatable – that will cost people money, or that will infringe on cherished freedoms (such as to fly). Recognising this will be a key step in accepting the reality of loss of aspects of our current lifestyles, and in beginning to work through the powerful emotions that this will engender (Randall, 2009). ¶ 3b. Avoid over-emphasis on the economic opportunities that mitigating, and adapting to, climate change may provide. ¶ There will, undoubtedly, be economic benefits to be accrued through investment in new technologies, but there will also be instances where the economic imperative and the climate change adaptation or mitigation imperative diverge, and periods of economic uncertainty for many people as some sectors contract. It seems inevitable that some interventions will have negative economic impacts (Stern, 2007).¶ Undue emphasis upon economic imperatives serves to reinforce the dominance, in society, of a set of extrinsic goals (focussed, for example, on financial benefit). A large body of empirical research demonstrates that these extrinsic goals are antagonistic to the emergence of pro-social and proenvironmental concern (Crompton and Kasser, 2009).¶ 3c. Avoid emphasis upon the opportunities of ‘green consumerism’ as a response to climate change.¶ As mentioned above (3b), a large body of research points to the antagonism between goals directed towards the acquisition of material objects and the emergence of pro-environmental and pro-social concern (Crompton and Kasser, 2009). Campaigns to ‘buy green’ may be effective in driving up sales of particular products, but in conveying the impression that climate change can be addressed by ‘buying the right things’, they risk undermining more difficult and systemic changes. A recent study found that people in an experiment who purchased ‘green’ products acted less altruistically on subsequent tasks (Mazar & Zhong, 2010) – suggesting that small ethical acts may act as a ‘moral offset’ and licence undesirable behaviours in other domains. This does not mean that private-sphere behaviour changes will always lead to a reduction in subsequent pro-environmental behaviour, but it does suggest that the reasons used to motivate these changes are critically important. Better is to emphasise that ‘every little helps a little’ – but that these changes are only the beginning of a process that must also incorporate more ambitious private-sphere change and significant collective action at a political level.¶ 4. Empathise with the emotional responses that will be engendered by a forthright presentation of the probable impacts of climate change. ¶ Belief in climate change and support for low-carbon policies will remain fragile unless people are emotionally engaged. We should expect people to be sad or angry, to feel guilt or shame, to yearn for that which is lost or to search for more comforting answers (Randall, 2009). Providing support and empathy in working through the painful emotions of 'grief' for a society that must undergo changes is a prerequisite for subsequent adaptation to new circumstances.¶ Without such support and empathy, it is more likely that people will begin to deploy a range of maladaptive ‘coping strategies’, such as denial of personal responsibility, blaming others, or becoming apathetic (Lertzman, 2008). An audience should not be admonished for deploying such strategies – this would in itself be threatening, and could therefore harden resistance to positive behaviour change (Miller and Rolnick, 2002). The key is not to dismiss people who exhibit maladaptive coping strategies, but to understand how they can be made more adaptive. People who feel socially supported will be more likely to adopt adaptive emotional responses - so facilitating social support for proenvironmental behaviour is crucial.¶ 5. Promote pro-environmental social norms and harness the power of social networks¶ One way of bridging the gap between private-sphere behaviour changes and collective action is the promotion of pro-environmental social norms. Pictures and videos of ordinary people (‘like me’) engaging in significant proenvironmental actions are a simple and effective way of generating a sense of social normality around pro-environmental behaviour (Schultz, Nolan, Cialdini, Goldstein and Griskevicius, 2007). There are different reasons that people adopt social norms, and encouraging people to adopt a positive norm simply to ‘conform’, to avoid a feeling of guilt, or for fear of not ‘fitting in’ is likely to produce a relatively shallow level of motivation for behaviour change. Where social norms can be combined with ‘intrinsic’ motivations (e.g. a sense of social belonging), they are likely to be more effective and persistent.¶ Too often, environmental communications are directed to the individual as a single unit in the larger social system of consumption and political engagement. This can make the problems feel too overwhelming, and evoke unmanageable levels of anxiety. Through the enhanced awareness of what other people are doing, a strong sense of collective purpose can be engendered. One factor that is likely to influence whether adaptive or maladaptive coping strategies are selected in response to fear about climate change is whether people feel supported by a social network – that is, whether a sense of ‘sustainable citizenship’ is fostered. The efficacy of groupbased programmes at promoting pro-environmental behaviour change has been demonstrated on numerous occasions – and participants in these projects consistently point to a sense of mutual learning and support as a key reason for making and maintaining changes in behaviour (Nye and Burgess, 2008). There are few influences more powerful than an individual’s social network. Networks are instrumental not just in terms of providing social support, but also by creating specific content of social identity – defining what it means to be “us”. If environmental norms are incorporated at this level (become defining for the group) they can result in significant behavioural change (also reinforced through peer pressure).¶ Of course, for the majority of people, this is unlikely to be a network that has climate change at its core. But social networks – Trade Unions, Rugby Clubs, Mother & Toddler groups – still perform a critical role in spreading change through society. Encouraging and supporting pre-existing social networks to take ownership of climate change (rather than approach it as a problem for ‘green groups’) is a critical task. As well as representing a crucial bridge between individuals and broader society, peer-to-peer learning circumnavigates many of the problems associated with more ‘top down’ models of communication – not least that government representatives are perceived as untrustworthy (Poortinga & Pidgeon, 2003). Peer-to-peer learning is more easily achieved in group-based dialogue than in designing public information films: But public information films can nonetheless help to establish social norms around community-based responses to the challenges of climate change, through clear visual portrayals of people engaging collectively in the pro-environmental behaviour.¶ The discourse should be shifted increasingly from ‘you’ to ‘we’ and from ‘I’ to ‘us’. This is starting to take place in emerging forms of community-based activism, such as the Transition Movement and Cambridge Carbon Footprint’s ‘Carbon Conversations’ model – both of which recognize the power of groups to help support and maintain lifestyle and identity changes. A nationwide climate change engagement project using a group-based behaviour change model with members of Trade Union networks is currently underway, led by the Climate Outreach and Information Network. These projects represent a method of climate change communication and engagement radically different to that typically pursued by the government – and may offer a set of approaches that can go beyond the limited reach of social marketing techniques.¶ One potential risk with appeals based on social norms is that they often contain a hidden message. So, for example, a campaign that focuses on the fact that too many people take internal flights actually contains two messages – that taking internal flights is bad for the environment, and that lots of people are taking internal flights. This second message can give those who do not currently engage in that behaviour a perverse incentive to do so, and campaigns to promote behaviour change should be very careful to avoid this. The key is to ensure that information about what is happening (termed descriptive norms), does not overshadow information about what should be happening (termed injunctive norms). ¶ 6. Think about the language you use, but don’t rely on language alone¶ A number of recent publications have highlighted the results of focus group research and talk-back tests in order to ‘get the language right’ (Topos Partnership, 2009; Western Strategies & Lake Research Partners, 2009), culminating in a series of suggestions for framing climate-change communications. For example, these two studies led to the suggestions that communicators should use the term ‘global warming’ or ‘our deteriorating atmosphere’, respectively, rather than ‘climate change’. Other research has identified systematic differences in the way that people interpret the terms ‘climate change’ and ‘global warming’, with ‘global warming’ perceived as more emotionally engaging than ‘climate change’ (Whitmarsh, 2009).¶ Whilst ‘getting the language right’ is important, it can only play a small part in a communication strategy. More important than the language deployed (i.e. ‘conceptual frames') are what have been referred to by some cognitive linguists as 'deep frames'. Conceptual framing refers to catchy slogans and clever spin (which may or may not be honest). At a deeper level, framing refers to forging the connections between a debate or public policy and a set of deeper values or principles. Conceptual framing (crafting particular messages focussing on particular issues) cannot work unless these messages resonate with a set of long-term deep frames.¶ Policy proposals which may at the surface level seem similar (perhaps they both set out to achieve a reduction in environmental pollution) may differ importantly in terms of their deep framing. For example, putting a financial value on an endangered species, and building an economic case for their conservation ‘commodifies’ them, and makes them equivalent (at the level of deep frames) to other assets of the same value (a hotel chain, perhaps). This is a very different frame to one that attempts to achieve the same conservation goals through the ascription of intrinsic value to such species – as something that should be protected in its own right. Embedding particular deep frames requires concerted effort (Lakoff, 2009), but is the beginning of a process that can build a broad, coherent cross-departmental response to climate change from government.¶ 7. Encourage public demonstrations of frustration at the limited pace of government action¶ Private-sphere behavioural change is not enough, and may even at times become a diversion from the more important process of bringing political pressure to bear on policy-makers. The importance of public demonstrations of frustration at both the lack of political progress on climate change and the barriers presented by vested interests is widely recognised – including by government itself. Climate change communications, including government communication campaigns, should work to normalise public displays of frustration with the slow pace of political change. Ockwell et al (2009) argued that communications can play a role in fostering demand for - as well as acceptance of - policy change. Climate change communication could (and should) be used to encourage people to demonstrate (for example through public demonstrations) about how they would like structural barriers to behavioural/societal change to be removed.

#### Simulation and institutional deliberation motivate effective responses to climate risks

Marx et al 7 (Sabine M, Center for Research on Environmental Decisions (CRED) @ Columbia University, Elke U. Weber, Graduate School of Business and Department of Psychology @ Columbia University, Benjamin S. Orlovea, Department of Environmental Science and Policy @ University of California Davis, Anthony Leiserowitz, Decision Research, David H. Krantz, Department of Psychology @ Columbia University, Carla Roncolia, South East Climate Consortium (SECC), Department of Biological and Agricultural Engineering @ University of Georgia and Jennifer Phillips, Bard Centre for Environmental Policy @ Bard College, “Communication and mental processes: Experiential and analytic processing of uncertain climate information”, 2007, http://climate.columbia.edu/sitefiles/file/Marx\_GEC\_2007.pdf)

Based on the observation that experiential and analytic processing systems compete and that personal experience and vivid descriptions are often favored over statistical information, we suggest the following research and policy implications.¶ Communications designed to create, recall and highlight relevant personal experience and to elicit affective responses can lead to more public attention to, processing of, and engagement with forecasts of climate variability and climate change. Vicarious experiential information in the form of scenarios, narratives, and analogies can help the public and policy makers imagine the potential consequences of climate variability and change, amplify or attenuate risk perceptions, and influence both individual behavioral intentions and public policy preferences. Likewise, as illustrated by the example of retranslation in the Uganda studies, the translation of statistical information into concrete experience with simulated forecasts, decisionmaking and its outcomes can greatly facilitate an intuitive understanding of both probabilities and the consequences of incremental change and extreme events, and motivate contingency planning.¶ Yet, while the engagement of experience-based, affective decision-making can make risk communications more salient and motivate behavior, experiential processing is also subject to its own biases, limitations and distortions, such as the finite pool of worry and single action bias. Experiential processing works best with easily imaginable, emotionally laden material, yet many aspects of climate variability and change are relatively abstract and require a certain level of analytical understanding (e.g., long-term trends in mean temperatures or precipitation). Ideally, communication of climate forecasts should encourage the interactive engagement of both analytic and experiential processing systems in the course of making concrete decisions about climate, ranging from individual choices about what crops to plant in a particular season to broad social choices about how to mitigate or adapt to global climate change.¶ One way to facilitate this interaction is through group and participatory decision-making. As the Uganda example suggests, group processes allow individuals with a range of knowledge, skills and personal experience to share diverse information and perspectives and work together on a problem. Ideally, groups should include at least one member trained to understand statistical forecast information to ensure that all sources of information—both experiential and analytic—are considered as part of the decision-making process. Communications to groups should also try to translate statistical information into formats readily understood in the language, personal and cultural experience of group members. In a somewhat iterative or cyclical process, the shared concrete information can then be re-abstracted to an analytic level that leads to action.¶ Risk and uncertainty are inherent dimensions of all climate forecasts and related decisions. Analytic products like trend analysis, forecast probabilities, and ranges of uncertainty ought to be valuable contributions to stakeholder decision-making. Yet decision makers also listen to the inner and communal voices of personal and collective experience, affect and emotion, and cultural values. Both systems—analytic and experiential—should be considered in the design of climate forecasts and risk communications. If not, many analytic products will fall on deaf ears as decision makers continue to rely heavily on personal experience and affective cues to make plans for an uncertain future. The challenge is to find innovative and creative ways to engage both systems in the process of individual and group decision-making.

#### The state is inevitable and critical to solving warming

Eckersley 4 Robyn, Reader/Associate Professor in the Department of Political Science at the University of Melbourne, “The Green State: Rethinking Democracy and Sovereignty”, MIT Press, 2004, Google Books, pp. 3-8

While acknowledging the basis for this antipathy toward the nation- state, and the limitations of state-centric analyses of global ecological degradation, I seek to draw attention to the positive role that states have played, and might increasingly play, in global and domestic politics. Writing more than twenty years ago, Hedley Bull (a proto-constructivist and leading writer in the English school) outlined the state's positive role in world affairs, and his arguments continue to provide a powerful challenge to those who somehow seek to "get beyond the state," as if such a move would provide a more lasting solution to the threat of armed conflict or nuclear war, social and economic injustice, or environmental degradation.10 As Bull argued, given that the state is here to stay whether we like it or not, then the call to get "beyond the state is a counsel of despair, at all events if it means that we have to begin by abolishing or subverting the state, rather than that there is a need to build upon it.""¶ In any event, rejecting the "statist frame" of world politics ought not prohibit an inquiry into the emancipatory potential of the state as a crucial "node" in any future network of global ecological governance. This is especially so, given that one can expect states to persist as major sites of social and political power for at least the foreseeable future and that any green transformations of the present political order will, short of revolution, necessarily be state-dependent. Thus, like it or not, those concerned about ecological destruction must contend with existing institutions and, where possible, seek to "rebuild the ship while still at sea." And if states are so implicated in ecological destruction, then an inquiry into the potential for their transformation even their modest reform into something that is at least more conducive to ecological sustainability would seem to be compelling.¶ Of course, it would be unhelpful to become singularly fixated on the redesign of the state at the expense of other institutions of governance. States are not the only institutions that limit, condition, shape, and direct political power, and it is necessary to keep in view the broader spectrum of formal and informal institutions of governance (e.g., local, national, regional, and international) that are implicated in global environmental change. Nonetheless, while the state constitutes only one modality of political power, it is an especially significant one because of its historical claims to exclusive rule over territory and peoples—as expressed in the principle of state sovereignty. As Gianfranco Poggi explains, the political power concentrated in the state "is a momentous, pervasive, critical phenomenon. Together with other forms of social power, it constitutes an indispensable medium for constructing and shaping larger social realities, for establishing, shaping and maintaining all broader and more durable collectivities."12 States play, in varying degrees, significant roles in structuring life chances, in distributing wealth, privilege, information, and risks, in upholding civil and political rights, and in securing private property rights and providing the legal/regulatory framework for capitalism. Every one of these dimensions of state activity has, for good or ill, a significant bearing on the global environmental crisis. Given that the green political project is one that demands far-reaching changes to both economies and societies, it is difficult to imagine how such changes might occur on the kind of scale that is needed without the active support of states. While it is often observed that states are too big to deal with local ecological problems and too small to deal with global ones, the state nonetheless holds, as Lennart Lundqvist puts it, "a unique position in the constitutive hierarchy from individuals through villages, regions and nations all the way to global organizations. The state is inclusive of lower political and administrative levels, and exclusive in speaking for its whole territory and population in relation to the outside world."13 In short, it seems to me inconceivable to advance ecological emancipation without also engaging with and seeking to transform state power.¶ Of course, not all states are democratic states, and the green movement has long been wary of the coercive powers that all states reputedly enjoy. Coercion (and not democracy) is also central to Max Weber's classic sociological understanding of the state as "a human community that (successfully) claims the monopoly of the legitimate use of physical force within a given territory."14 Weber believed that the state could not be defined sociologically in terms of its ends\* only formally as an organization in terms of the particular means that are peculiar to it.15 Moreover his concept of legitimacy was merely concerned with whether rules were accepted by subjects as valid (for whatever reason); he did not offer a normative theory as to the circumstances when particular rules ought to be accepted or whether beliefs about the validity of rules were justified. Legitimacy was a contingent fact, and in view of his understanding of politics as a struggle for power in the context of an increasingly disenchanted world, likely to become an increasingly unstable achievement.16¶ In contrast to Weber, my approach to the state is explicitly normative and explicitly concerned with the purpose of states, and the democratic basis of their legitimacy. It focuses on the limitations of liberal normative theories of the state (and associated ideals of a just constitutional arrangement), and it proposes instead an alternative green theory that seeks to redress the deficiencies in liberal theory. Nor is my account as bleak as Weber's. The fact that states possess a monopoly of control over the means of coercion is a most serious matter, but it does not necessarily imply that they must have frequent recourse to that power. In any event, whether the use of the state's coercive powers is to be deplored or welcomed turns on the purposes for which that power is exercised, the manner in which it is exercised, and whether it is managed in public, transparent, and accountable ways—a judgment that must be made against a background of changing problems, practices, and under- standings. The coercive arm of the state can be used to "bust" political demonstrations and invade privacy. It can also be used to prevent human rights abuses, curb the excesses of corporate power, and protect the environment.¶ In short, although the political autonomy of states is widely believed to be in decline, there are still few social institution that can match the same degree of capacity and potential legitimacy that states have to redirect societies and economies along more ecologically sustainable lines to address ecological problems such as global warming and pollution, the buildup of toxic and nuclear wastes and the rapid erosion of the earth's biodiversity. States—particularly when they act collectively—have the capacity to curb the socially and ecologically harmful consequences of capitalism. They are also more amenable to democratization than cor- porations, notwithstanding the ascendancy of the neoliberal state in the increasingly competitive global economy. There are therefore many good reasons why green political theorists need to think not only critically but also constructively about the state and the state system. While the state is certainly not "healthy" at the present historical juncture, in this book I nonetheless join Poggi by offering "a timid two cheers for the old beast," at least as a potentially more significant ally in the green cause.17

### Econ Rationality

#### Economic rationality produces a productive ontology

Boetke 03(Peter, professor of economics at George Mason ,Review of “Economics as Ideology”, published in Revue de Philosophie economique, http://www.gmu.edu/departments/economics/pboettke/pubs/recenstion\_douvrage.pdf)

It is my belief that Hoover is led to this, and other positions in his book that I find objectionable, because he fails to see economics as a discipline which can provide us with knowledge equivalent in ontological stature to the law of gravity and that democratic deliberations often produce economic policies that are the equivalent of engineering proposals for human beings to float rather than walk or drive to their next destination. If my characterization is correct, then as we saw in the quote from Mises, the economists will find themselves in opposition to proposed policy solutions to right this or that perceived social wrong. The economist is put in the unenviable position of reminding fellow citizens that wishing it so doesn't necessarily make it so. The science of economics puts parameters on our utopias, and those who advocate utopian solutions cannot stand any suggestion that their plan for the future is unworkable. The discipline of economics in addition to providing a critique, also suggests that any alternative arrangement being proposed must specify the institutional mechanisms by which incentives between actors will become aligned and the correct information will flow to right actors in time for them to make appropriate decisions or learn from their previous decisions that mistakes were made so the appropriate adjustments will be made. If no mechanism is in place, then incentive incompatibilities and coordination failures will result so that no matter how beautiful the proposed policy might appear on paper the solution will be one of economic waste and political opportunism. Because Hoover's book doesn't deal with economic science in such a sustained way, it cannot at the end of the day explain the evolution of modern economic thought and without that there is no way to understand the creation of contemporary politics in the wake of the breakdown of the Keynesian consensus in the 1970s, the collapse of communism in the 1980s and the realization of the tragic failure of development planning in the third world in the 1990s. Economic reality, it turns out more than psycho-history is the best way to understand the way the world work. The distinction between ontology and epistemology are often forgotten in discussions of the methodology and philosophy of the social sciences. We come to know the laws of gravity in a manner different than we come to know the law of demand (question of epistemology), but the forces at work that are described by the law of gravity and the law of demand are nevertheless real in the same way (question of ontology). The argument for methodological dualism between the natural and social sciences that was made by Mises and then Hayek crucially relies on this distinction between ontology and epistemology. In other words, economics is capable of establishing laws that have the same ontological claim as those derived in physics, but they are arrived at through procedures of inquiry entirely different from those employed in the natural sciences.

#### Economic rationality key to survival

Rockwell 08(Rockwell Jr., president of the Ludwig von Mises Institute, 5/19/2008, Llewellyn, “Everything You Love You Owe to Capitalism,” <http://mises.org/story/2982>)

For a person who has read in economics, and absorbed its essential lessons, the world around us becomes vivid and clear, and certain moral imperatives strike us. We know now that commerce deserves defense. We see entrepreneurs as great heroes. We sympathize with the plight of producers. We see unions not as defenders of rights but as privileged cartels that exclude people who need work. We see regulations not as consumer protection but rather as cost-raising rackets lobbied for by some producers to hurt other producers. We see antitrust not as a safeguard against corporate excess but as a bludgeon used by big players against smarter competitors. In short, economics helps us see the world as it is. And its contribution lies not in the direction of the assembly of ever more facts, but in helping those facts fit a coherent theory of the world. And here we see the essence of our job at the Mises Institute. It is to educate and instill a systematic method for understanding the world as it is. Our battleground is not the courts, nor the election polls, nor the presidency, nor the legislature, and certainly not the wicked arena of lobbying and political payoffs. Our battleground concerns a domain of existence that is more powerful in the long run. It concerns the ideas that individuals hold about how the world works. As we get older and see ever more young generations coming up behind us, we are often struck by the great truth that knowledge in this world is not cumulative over time. What one generation has learned and absorbed is not somehow passed on to the next one through genetics or osmosis. Each generation must be taught anew. Economic theory, I'm sorry to report, is not written on our hearts. It was a long time in the process of being discovered. But now that we know, it must be passed on — and in this way, it is like the ability to read, or to understand great literature. It is the obligation of our generation to teach the next generation. "If the world had drawn the correct lessons from these events, there would be no more need for economic education and no more need even for the bulk of what the Mises Institute does." And we are not merely talking here of knowledge for knowledge's sake. What is at stake is our prosperity. It is our standard of living. It is the well-being of our children and all of society. It is freedom and the flourishing of civilization that stand in the balance. Whether we grow and thrive and create and flourish, or wither and die and lose all that we have inherited, ultimately depends on these abstract ideas we hold concerning cause and effect in society. These ideas do not usually come to us by pure observation. They must be taught and explained.

#### Economic methodology is true

Sonin 09 [Konstantin Sonin, professor at the New Economic School/CEFIR, “In Defense of Economics” The Moscow Times, 7-30-2009, http://www.themoscowtimes.com/opinion/article/in-defense-of-economics/379956.html]

It is often said that people from certain professions have a harder time than others at social gatherings. For example, if a policeman attends a high school reunion, he must listen the whole evening to stories about corruption in law enforcement agencies, while a doctor is subjected to detailed accounts of illnesses suffered by various relatives and friends of those present. For the last year, economists have been experiencing the same thing. Even when the subject concerns something as innocuous as which economist won this year’s Nobel Prize in economics, the discussion is inevitably accompanied by some negative emotions. For some reason, the global economic crisis has even undermined people’s faith in economics as an academic discipline. This doesn’t make sense logically. After all, if a patient does not recover from an illness, does that mean the chemistry and biology courses the doctor studied as a student were of no value? If we hear that a building somewhere has collapsed, does it mean the laws of physics have ceased to operate? No, we simply assume that the builders were negligent, that they pocketed part of the money intended for construction or that officials took bribes to overlook safety violations. And even if the properties of some building materials were described incorrectly in the textbook, a few minor corrections to the text would eliminate the problem. Nobody would suggest rewriting physics textbooks from scratch. The same is true of economic science: It provides a solid basis for analyzing crises, and nothing has happened to warrant changing basic economics textbooks in any way. It is no coincidence that the sharp rise in skepticism toward economics as a science is largely confined to Russia. It is Russia’s misfortune that the economics discipline is in such a sorry state. Economic science in the West has evolved for the past 200 years. It has traveled down the same path of development that other sciences have taken, formulating logically consistent theories and hypotheses. Economics is largely following the same path as physics once did. One hundred years ago, physicists also had difficulty defending the need for new theories to explain the physical universe. After all, such theories do little to help build bridges or internal combustion engines. And for 60 years in the Soviet Union, physicists risked their careers — if not their lives — for the right to work on quantum mechanics. By mid-century, Soviet economic thinking had sunk, literally, to the medieval level. If you don’t believe it, try reading “Economic Problems of Socialism in the U.S.S.R.” published in 1952 and bearing Soviet leader Josef Stalin’s signature. It is hard to believe that a country that in the early part of the 20th century gave economic science the basis for the theory of probability, the Slutsky identity in microeconomics, the idea of the input-output balance and the hypothesis of long cycles in economic development could produce such an illiterate and ignorantly written document signed by the most powerful leader of the country. Economists are like physicians in that nobody pays any attention to them as long as the patient is healthy. But the unprecedented increase in prosperity in the decades following World War II was based largely on achievements made possible by progressive economic thinking. Anyone who would like to enjoy a higher standard of living in the future should reflect for a moment. Maybe the economics textbooks were not so bad after all. Maybe, the real problem is that people didn’t read them carefully enough.

# 1NR

We read the Arrington card again