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#### Text: The United States federal government should offer power purchase agreements to companies that generate electricity from small modular reactors in the United States.

### Contention One: the Heat is On

#### Global Warming is happening – most recent and best evidence concludes that it is human induced

Muller 7-28-2012 [Richard, professor of physics at the University of California, Berkeley, and a former MacArthur Foundation fellow, “The Conversion of a Climate-Change Skeptic”, http://www.nytimes.com/2012/07/30/opinion/the-conversion-of-a-climate-change-skeptic.html?pagewanted=all]

CALL me a converted skeptic. Three years ago I identified problems in previous climate studies that, in my mind, threw doubt on the very existence of global warming. Last year, following an intensive research effort involving a dozen scientists, I concluded that global warming was real and that the prior estimates of the rate of warming were correct. I’m now going a step further: Humans are almost entirely the cause. My total turnaround, in such a short time, is the result of careful and objective analysis by the Berkeley Earth Surface Temperature project, which I founded with my daughter Elizabeth. Our results show that the average temperature of the earth’s land has risen by two and a half degrees Fahrenheit over the past 250 years, including an increase of one and a half degrees over the most recent 50 years. Moreover, it appears likely that essentially all of this increase results from the human emission of greenhouse gases. These findings are stronger than those of the Intergovernmental Panel on Climate Change [IPCC], the United Nations group that defines the scientific and diplomatic consensus on global warming. In its 2007 report, the I.P.C.C. concluded only that most of the warming of the prior 50 years could be attributed to humans. It was possible, according to the I.P.C.C. consensus statement, that the warming before 1956 could be because of changes in solar activity, and that even a substantial part of the more recent warming could be natural. Our Berkeley Earth approach used sophisticated statistical methods developed largely by our lead scientist, Robert Rohde, which allowed us to determine earth land temperature much further back in time. We carefully studied issues raised by skeptics: biases from urban heating (we duplicated our results using rural data alone), from data selection (prior groups selected fewer than 20 percent of the available temperature stations; we used virtually 100 percent), from poor station quality (we separately analyzed good stations and poor ones) and from human intervention and data adjustment (our work is completely automated and hands-off). In our papers we demonstrate that none of these potentially troublesome effects unduly biased our conclusions. The historic temperature pattern we observed has abrupt dips that match the emissions of known explosive volcanic eruptions; the particulates from such events reflect sunlight, make for beautiful sunsets and cool the earth’s surface for a few years. There are small, rapid variations attributable to El Niño and other ocean currents such as the Gulf Stream; because of such oscillations, the “flattening” of the recent temperature rise that some people claim is not, in our view, statistically significant. What has caused the gradual but systematic rise of two and a half degrees? We tried fitting the shape to simple math functions (exponentials, polynomials), to solar activity and even to rising functions like world population. By far the best match was to the record of atmospheric carbon dioxide (CO2), measured from atmospheric samples and air trapped in polar ice.

#### CO2 is the primary driver of climate change – outweighs all alt causes

Vertessy and Clark3-13**-**2012[Rob, Acting Director of Australian Bureau of Meteorology, and Megan, Chief Executive Officer at the Commonwealth Scientific and Industrial Research Organisation, “State of the Climate 2012”, <http://theconversation.edu.au/state-of-the-climate-2012-5831>]

Carbon dioxide (CO2) emissions account for about 60% of the effect from anthropogenic greenhouse gases on the earth’s energy balance over the past 250 years. These global CO2 emissions are mostly from fossil fuels (more than 85%), land use change, mainly associated with tropical deforestation (less than 10%), and cement production and other industrial processes (about 4%). Australia contributes about 1.3% of the global CO2 emissions. Energy generation continues to climb and is dominated by fossil fuels – suggesting emissions will grow for some time yet. CO2 levels are rising in the atmosphere and ocean. About 50% of the amount of CO2 emitted from fossil fuels, industry, and changes in land-use, stays in the atmosphere. The remainder is taken up by the ocean and land vegetation, in roughly equal parts. The extra carbon dioxide absorbed by the oceans is estimated to have caused about a 30% increase in the level of ocean acidity since pre-industrial times. The sources of the CO2 increase in the atmosphere can be identified from studies of the isotopic composition of atmospheric CO2 and from oxygen (O2) concentration trends in the atmosphere. The observed trends in the isotopic (13C, 14C) composition of CO2 in the atmosphere and the decrease in the concentration of atmospheric O2 confirm that the dominant cause of the observed CO2 increase is the combustion of fossil fuels.

#### The rate of climate change prevents adaptation

Romm ’07 [Joseph, Senior Fellow at Center for American Progress, Aug 29, “Hurricane Katrina and the Myth of Global Warming Adaptation,” http://gristmill.grist.org/story/2007/8/29/94352/7786]

If we won't adapt to the realities of having one city below sea level in hurricane alley, what are the chances we are going to adapt to the realities of having all our great Gulf and Atlantic Coast cities at risk for the same fate as New Orleans -- since sea level from climate change will ultimately put many cities, like Miami, below sea level? And just how do you adapt to sea levels rising 6 to 12 inches a decade for centuries, which well may be our fate by 2100 if we don't reverse greenhouse-gas emissions trends soon. Climate change driven by human-caused GHGs is already happening much faster than past climate change from natural causes -- and it is accelerating.

#### Even if adaptation was possible – non-linear impacts disrupt the process

Mazo 2010 [Jeffrey Mazo, Managing Editor, Survival and Research Fellow for Environmental Security and Science Policy at the International Institute for Strategic Studies in London, 3-2010, “Climate Conflict: How global warming threatens security and what to do about it,” pg. 29]

This latter aspect, the rate of change, is a critical factor in terms of adapting to climate change. Although some states and societies will be better able to adapt to change than others, regardless of how resilient a given society is there will always be some point at which its efforts would be overwhelmed by the pace of change. Changes in climate - long-term wind and rainfall patterns, daily and seasonal temperature variations, and so on - will produce physical effects such as droughts, floods and increasing severity of typhoons and hurricanes, and ecological effects such as changes in the geographical range of species (including disease-causing organisms, domesticated crops and crop pests). These physical changes in turn may lead to effects such as disruption of water resources, declining crop yields and food stocks, wildfires, severe disease outbreaks, and an increase in numbers of refugees and internally displaced persons.4

#### 4 degree warming is inevitable with current carbon usage trends – only emissions reductions solve

Potsdam Institute, 2012 (Potsdam Institute for Climate Impact Research and Climate Analytics, “Turn Down the Heat: Why a 4°C Warmer World Must be Avoided”, A report for the World Bank, November, http://climatechange.worldbank.org/sites/default/files/Turn\_Down\_the\_heat\_Why\_a\_4\_degree\_centrigrade\_warmer\_world\_must\_be\_avoided.pdf)

The emission pledges made at the climate conventions in Copenhagen and Cancun, if fully met, place the world on a trajectory for a global mean warming of well over 3°C. Even if these pledges are fully implemented there is still about a 20 percent chance of exceeding 4°C in 2100.10 If these pledges are not met then there is a much higher likelihood—more than 40 percent—of warming exceeding 4°C by 2100, and a 10 percent possibility of this occurring already by the 2070s, assuming emissions follow the medium business-as-usual reference pathway. On a higher fossil fuel intensive business-as-usual pathway, such as the IPCC SRESA1FI, warming exceeds 4°C earlier in the 21st century. It is important to note, however, that such a level of warming can still be avoided. There are technically and economically feasible emission pathways that could still limit warming to 2°C or below in the 21st century. To illustrate a possible pathway to warming of 4°C or more, Figure 22 uses the highest SRES scenario, SRESA1FI, and compares it to other, lower scenarios. SRESA1FI is a fossil-fuel intensive, high economic growth scenario that would very likely cause mean the global temperature to exceed a 4°C increase above preindustrial temperatures. Most striking in Figure 22 is the large gap between the projections by 2100 of current emissions reduction pledges and the (lower) emissions scenarios needed to limit warming to 1.5–2°C above pre-industrial levels. This large range in the climate change implications of the emission scenarios by 2100 is important in its own right, but it also sets the stage for an even wider divergence in the changes that would follow over the subsequent centuries, given the long response times of the climate system, including the carbon cycle and climate system components that contribute to sea-level rise. The scenarios presented in Figure 22 indicate the likely onset time for warming of 4°C or more. It can be seen that most of the scenarios remain fairly close together for the next few decades of the 21st century. By the 2050s, however, there are substantial differences among the changes in temperature projected for the different scenarios. In the highest scenario shown here (SRES A1FI), the median estimate (50 percent chance) of warming reaches 4°C by the 2080s, with a smaller probability of 10 percent of exceeding this level by the 2060s. Others have reached similar conclusions (Betts et al. 2011). Thus, even if the policy pledges from climate convention in Copenhagen and Cancun are fully implemented, there is still a chance of exceeding 4°C in 2100. If the pledges are not met and present carbon intensity trends continue, then the higher emissions scenarios shown in Figure 22 become more likely, raising the probability of reaching 4°C global mean warming by the last quarter of this century. Figure 23 shows a probabilistic picture of the regional patterns of change in temperature and precipitation for the lowest and highest RCP scenarios for the AR4 generation of AOGCMS. Patterns are broadly consistent between high and low scenarios. The high latitudes tend to warm substantially more than the global mean. RCP8.5, the highest of the new IPCC AR5 RCP scenarios, can be used to explore the regional implications of a 4°C or warmer world. For this report, results for RCP8.5 (Moss et al. 2010) from the new IPCC AR5 CMIP5 (Coupled Model Intercomparison Project; Taylor, Stouffer, & Meehl 2012) climate projections have been analyzed. Figure 24 shows the full range of increase of global mean temperature over the 21st century, relative to the 1980–2000 period from 24 models driven by the RCP8.5 scenario, with those eight models highlighted that produce a mean warming of 4–5°C above preindustrial temperatures averaged over the period 2080–2100. In terms of regional changes, the models agree that the most pronounced warming (between 4°C and 10°C) is likely to occur over land. During the boreal winter, a strong “arctic amplification” effect is projected, resulting in temperature anomalies of over 10°C in the Arctic region. The subtropical region consisting of the Mediterranean, northern Africa and the Middle East and the contiguous United States is likely to see a monthly summer temperature rise of more than 6°C.

#### Not too late – every reduction key

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[Dana, is an environmental scientist at a private environmental consulting firm in the Sacramento, California area. He has a Bachelor's Degree in astrophysics from the University of California at Berkeley, and a Master's Degree in physics from the University of California at Davis. He has been researching climate science, economics, and solutions as a hobby since 2006, and has contributed to Skeptical Science since September, 2010, <http://www.skepticalscience.com/realistically-what-might-future-climate-look-like.html>, HM]

We're not yet committed to surpassing 2°C global warming, but as Watson noted, we are quickly running out of time to realistically give ourselves a chance to stay below that 'danger limit'. However, 2°C is not a do-or-die threshold. Every bit of CO2 emissions we can reduce means that much avoided future warming, which means that much avoided climate change impacts. As Lonnie Thompson noted, the more global warming we manage to mitigate, the less adaption and suffering we will be forced to cope with in the future. Realistically, based on the current political climate (which we will explore in another post next week), limiting global warming to 2°C is probably the best we can do. However, there is a big difference between 2°C and 3°C, between 3°C and 4°C, and anything greater than 4°C can probably accurately be described as catastrophic, since various tipping points are expected to be triggered at this level. Right now, we are on track for the catastrophic consequences (widespread coral mortality, mass extinctions, hundreds of millions of people adversely impacted by droughts, floods, heat waves, etc.). But we're not stuck on that track just yet, and we need to move ourselves as far off of it as possible by reducing our greenhouse gas emissions as soon and as much as possible. There are of course many people who believe that the planet will not warm as much, or that the impacts of the associated climate change will be as bad as the body of scientific evidence suggests. That is certainly a possiblity, and we very much hope that their optimistic view is correct. However, what we have presented here is the best summary of scientific evidence available, and it paints a very bleak picture if we fail to rapidly reduce our greenhouse gas emissions. If we continue forward on our current path, catastrophe is not just a possible outcome, it is the most probable outcome. And an intelligent risk management approach would involve taking steps to prevent a catastrophic scenario if it were a mere possibility, let alone the most probable outcome. This is especially true since the most important component of the solution - carbon pricing - can be implemented at a relatively low cost, and a far lower cost than trying to adapt to the climate change consequences we have discussed here (Figure 4).

### Contention Two: Extinction

#### Scenario A is Agriculture

#### Global warming makes global agricultural production impossible – resulting in mass starvation

Potsdam Institute, 2012 (Potsdam Institute for Climate Impact Research and Climate Analytics, “Turn Down the Heat: Why a 4°C Warmer World Must be Avoided”, A report for the World Bank, November, http://climatechange.worldbank.org/sites/default/files/Turn\_Down\_the\_heat\_Why\_a\_4\_degree\_centrigrade\_warmer\_world\_must\_be\_avoided.pdf)

The overall conclusions of IPCC AR4 concerning food production and agriculture included the following: • Crop productivity is projected to increase slightly at mid- to high latitudes for local mean temperature increases of up to 1 to 3°C depending on the crop, and then decrease beyond that in some regions (medium confidence) {WGII 5.4, SPM}. • At lower latitudes, especially in seasonally dry and tropical regions, crop productivity is projected to decrease for even small local temperature increases (1 to 2°C) which would increase the risk of hunger (medium confidence) {WGII 5.4, SPM}. • Globally, the potential for food production is projected to increase with increases in local average temperature over a range of 1 to 3°C, but above this it is projected to decrease (medium confidence) {WGII 5.4, 5.5, SPM}. These findings clearly indicate a growing risk for low-latitude regions at quite low levels of temperature increase and a growing risk for systemic global problems above a warming of a few degrees Celsius. While a comprehensive review of literature is forthcoming in the IPCC AR5, the snapshot overview of recent scientific literature provided here illustrates that the concerns identified in the AR4 are confirmed by recent literature and in important cases extended. In particular, impacts of extreme heat waves deserve mention here for observed agricultural impacts (see also Chapter 2). This chapter will focus on the latest findings regarding possible limits and risks to large-scale agriculture production because of climate change, summarizing recent studies relevant to this risk assessment, including at high levels of global warming approaching 4°C. In particular, it will deliberately highlight important findings that point to the risks of assuming a forward projection of historical trends. Projections for food and agriculture over the 21st century indicate substantial challenges irrespective of climate change. As early as 2050, the world’s population is expected to reach about 9 billion people (Lutz and Samir 2010) and demand for food is expected to increase accordingly. Based on the observed relationship between per capita GDP and per capita demand for crop calories (human consumption, feed crops, fish production and losses during food production), Tilman et al. (2011) project a global increase in the demand for crops by about 100 percent from 2005 to 2050. Other estimates for the same period project a 70 percent increase of demand (Alexandratos 2009). Several projections suggest that global cereal and livestock production may need to increase by between 60 and 100 percent to 2050, depending on the warming scenario (Thornton et al. 2011). The historical context can on the one hand provide reassurance that despite growing population, food production has been able to increase to keep pace with demand and that despite occasional fluctuations, food prices generally stabilize or decrease in real terms (Godfray, Crute, et al. 2010). Increases in food production have mainly been driven by more efficient use of land, rather than by the extension of arable land, with the former more widespread in rich countries and the latter tending to be practiced in poor countries (Tilman et al. 2011). While grain production has more than doubled, the area of land used for arable agriculture has only increased by approximately 9 percent (Godfray, Beddington, et al. 2010). However, although the expansion of agricultural production has proved possible through technological innovation and improved water-use efficiency, observation and analysis point to a significant level of vulnerability of food production and prices to the consequences of climate change, extreme weather, and underlying social and economic development trends. There are some indications that climate change may reduce arable land in low-latitude regions, with reductions most pronounced in Africa, Latin America, and India (Zhang and Cai 2011). For example, flooding of agricultural land is also expected to severely impact crop yields in the future: 10.7 percent of South Asia´s agricultural land is projected to be exposed to inundation, accompanied by a 10 percent intensification of storm surges, with 1 m sea-level rise (Lange et al. 2010). Given the competition for land that may be used for other human activities (for example, urbanization and biofuel production), which can be expected to increase as climate change places pressure on scarce resources, it is likely that the main increase in production will have to be managed by an intensification of agriculture on the same—or possibly even reduced—amount of land (Godfray, Beddington et al. 2010; Smith et al. 2010). Declines in nutrient availability (for example, phosphorus), as well as the spread in pests and weeds, could further limit the increase of agricultural productivity. Geographical shifts in production patterns resulting from the effects of global warming could further escalate distributional issues in the future. While this will not be taken into consideration here, it illustrates the plethora of factors to take into account when thinking of challenges to promoting food security in a warming world. New results published since 2007 point to a more rapidly escalating risk of crop yield reductions associated with warming than previously predicted (Schlenker and Lobell 2010; Schlenker and Roberts 2009). In the period since 1980, patterns of global crop production have presented significant indications of an adverse effect resulting from climate trends and variability, with maize declining by 3.8 percent and wheat production by 5.5 percent compared to a case without climate trends. A significant portion of increases in crop yields from technology, CO2 fertilization, and other changes may have been offset by climate trends in some countries (Lobell et al. 2011). This indication alone casts some doubt on future projections based on earlier crop models. In relation to the projected effects of climate change three interrelated factors are important: temperature-induced effect, precipitation-induced effect, and the CO2 -fertilization effect. The following discussion will focus only on these biophysical factors. Other factors that can damage crops, for example, the elevated levels of tropospheric ozone (van Groenigen et al. 2012), fall outside the scope of this report and will not be addressed. Largely beyond the scope of this report are the far-reaching and uneven adverse implications for poverty in many regions arising from the macroeconomic consequences of shocks to global agricultural production from climate change. It is necessary to stress here that even where overall food production is not reduced or is even increased with low levels of warming, distributional issues mean that food security will remain a precarious matter or worsen as different regions are impacted differently and food security is further challenged by a multitude of nonclimatic factors.

#### Scenario B is Biodiversity

#### 4 degrees of warming make sustaining biodiversity impossible – the impact is extinction

Potsdam Institute, 2012 (Potsdam Institute for Climate Impact Research and Climate Analytics, “Turn Down the Heat: Why a 4°C Warmer World Must be Avoided”, A report for the World Bank, November, http://climatechange.worldbank.org/sites/default/files/Turn\_Down\_the\_heat\_Why\_a\_4\_degree\_centrigrade\_warmer\_world\_must\_be\_avoided.pdf)

Ecosystems and their species provide a range of important goods and services for human society. These include water, food, cultural and other values. In the AR4 an assessment of climate change effects on ecosystems and their services found the following: • If greenhouse gas emissions and other stresses continue at or above current rates, the resilience of many ecosystems is likely to be exceeded by an unprecedented combination of change in climate, associated disturbances (for example, flooding, drought, wildfire, insects, and ocean acidification) and other stressors (global change drivers) including land use change, pollution and over-exploitation of resources. • Approximately 20 to 30 percent of plant and animal species assessed so far are likely to be at increased risk of extinction, if increases in global average temperature exceed of 2–3° above preindustrial levels. • For increases in global average temperature exceeding 2 to 3° above preindustrial levels and in concomitant atmospheric CO2 concentrations, major changes are projected in ecosystem structure and function, species’ ecological interactions and shifts in species’ geographical ranges, with predominantly negative consequences for biodiversity and ecosystem goods and services, such as water and food supply. It is known that past large-scale losses of global ecosystems and species extinctions have been associated with rapid climate change combined with other ecological stressors. Loss and/or degradation of ecosystems, and rates of extinction because of human pressures over the last century or more, which have intensified in recent decades, have contributed to a very high rate of extinction by geological standards. It is well established that loss or degradation of ecosystem services occurs as a consequence of species extinctions, declining species abundance, or widespread shifts in species and biome distributions (Leadley et al. 2010). Climate change is projected to exacerbate the situation. This section outlines the likely consequences for some key ecosystems and for biodiversity. The literature tends to confirm the conclusions from the AR4 outlined above. Despite the existence of detailed and highly informative case studies, upon which this section will draw, it is also important to recall that there remain many uncertainties (Bellard, Bertelsmeier, Leadley, Thuiller, and Courchamp, 2012). However, threshold behavior is known to occur in biological systems (Barnosky et al. 2012) and most model projections agree on major adverse consequences for biodiversity in a 4°C world (Bellard et al., 2012). With high levels of warming, coalescing human induced stresses on ecosystems have the potential to trigger large-scale ecosystem collapse (Barnosky et al. 2012). Furthermore, while uncertainty remains in the projections, there is a risk not only of major loss of valuable ecosystem services, particularly to the poor and the most vulnerable who depend on them, but also of feedbacks being initiated that would result in ever higher CO2 emissions and thus rates of global warming. Significant effects of climate change are already expected for warming well below 4°C. In a scenario of 2.5°C warming, severe ecosystem change, based on absolute and relative changes in carbon and water fluxes and stores, cannot be ruled out on any continent (Heyder, Schaphoff, Gerten, & Lucht, 2011). If warming is limited to less than 2°C, with constant or slightly declining precipitation, small biome shifts are projected, and then only in temperate and tropical regions. Considerable change is projected for cold and tropical climates already at 3°C of warming. At greater than 4°C of warming, biomes in temperate zones will also be substantially affected. These changes would impact not only the human and animal communities that directly rely on the ecosystems, but would also exact a cost (economic and otherwise) on society as a whole, ranging from extensive loss of biodiversity and diminished land cover, through to loss of ecosystems services such as fisheries and forestry (de Groot et al., 2012; Farley et al., 2012). Ecosystems have been found to be particularly sensitive to geographical patterns of climate change (Gonzalez, Neilson, Lenihan, and Drapek, 2010). Moreover, ecosystems are affected not only by local changes in the mean temperature and precipitation, along with changes in the variability of these quantities and changes by the occurrence of extreme events. These climatic variables are thus decisive factors in determining plant structure and ecosystem composition (Reu et al., 2011). Increasing vulnerability to heat and drought stress will likely lead to increased mortality and species extinction. For example, temperature extremes have already been held responsible for mortality in Australian flying-fox species (Welbergen, Klose, Markus, and Eby 2008), and interactions between phenological changes driven by gradual climate changes and extreme events can lead to reduced fecundity (Campbell et al. 2009; Inouye, 2008). Climate change also has the potential to facilitate the spread and establishment of invasive species (pests and weeds) (Hellmann, Byers, Bierwagen, & Dukes, 2008; Rahel & Olden, 2008) with often detrimental implications for ecosystem services and biodiversity. Human land-use changes are expected to further exacerbate climate change driven ecosystem changes, particularly in the tropics, where rising temperatures and reduced precipitation are expected to have major impacts (Campbell et al., 2009; Lee & Jetz, 2008). Ecosystems will be affected by the increased occurrence of extremes such as forest loss resulting from droughts and wildfire exacerbated by land use and agricultural expansion (Fischlin et al., 2007). Climate change also has the potential to catalyze rapid shifts in ecosystems such as sudden forest loss or regional loss of agricultural productivity resulting from desertification (Barnosky et al., 2012). The predicted increase in extreme climate events would also drive dramatic ecosystem changes (Thibault and Brown 2008; Wernberg, Smale, and Thomsen 2012). One such extreme event that is expected to have immediate impacts on ecosystems is the increased rate of wildfire occurrence. Climate change induced shifts in the fire regime are therefore in turn powerful drivers of biome shifts, potentially resulting in considerable changes in carbon fluxes over large areas (Heyder et al., 2011; Lavorel et al., 2006) It is anticipated that global warming will lead to global biome shifts (Barnosky et al. 2012). Based on 20th century observations and 21st century projections, poleward latitudinal biome shifts of up to 400 km are possible in a 4° C world (Gonzalez et al., 2010). In the case of mountaintop ecosystems, for example, such a shift is not necessarily possible, putting them at particular risk of extinction (La Sorte and Jetz, 2010). Species that dwell at the upper edge of continents or on islands would face a similar impediment to adaptation, since migration into adjacent ecosystems is not possible (Campbell, et al. 2009; Hof, Levinsky, Araújo, and Rahbek 2011). The consequences of such geographical shifts, driven by climatic changes as well as rising CO2 concentrations, would be found in both reduced species richness and species turnover (for example, Phillips et al., 2008; White and Beissinger 2008). A study by (Midgley and Thuiller, 2011) found that, of 5,197 African plant species studied, 25–42 percent could lose all suitable range by 2085. It should be emphasized that competition for space with human agriculture over the coming century is likely to prevent vegetation expansion in most cases (Zelazowski et al., 2011) Species composition changes can lead to structural changes of the entire ecosystem, such as the increase in lianas in tropical and temperate forests (Phillips et al., 2008), and the encroachment of woody plants in temperate grasslands (Bloor et al., 2008, Ratajczak et al., 2012), putting grass-eating herbivores at risk of extinction because of a lack of food available—this is just one example of the sensitive intricacies of ecosystem responses to external perturbations. There is also an increased risk of extinction for herbivores in regions of drought-induced tree dieback, owing to their inability to digest the newly resident C4 grasses (Morgan et al., 2008). The following provides some examples of ecosystems that have been identified as particularly vulnerable to climate change. The discussion is restricted to ecosystems themselves, rather than the important and often extensive impacts on ecosystems services. Boreal-temperate ecosystems are particularly vulnerable to climate change, although there are large differences in projections, depending on the future climate model and emission pathway studied. Nevertheless there is a clear risk of large-scale forest dieback in the boreal-temperate system because of heat and drought (Heyder et al., 2011). Heat and drought related die-back has already been observed in substantial areas of North American boreal forests (Allen et al., 2010), characteristic of vulnerability to heat and drought stress leading to increased mortality at the trailing edge of boreal forests. The vulnerability of transition zones between boreal and temperate forests, as well as between boreal forests and polar/tundra biomes, is corroborated by studies of changes in plant functional richness with climate change (Reu et al., 2011), as well as analyses using multiple dynamic global vegetation models (Gonzalez et al., 2010). Subtle changes within forest types also pose a great risk to biodiversity as different plant types gain dominance (Scholze et al., 2006). Humid tropical forests also show increasing risk of major climate induced losses. At 4°C warming above pre-industrial levels, the land extent of humid tropical forest, characterized by tree species diversity and biomass density, is expected to contract to approximately 25 percent of its original size [see Figure 3 in (Zelazowski et al., 2011)], while at 2°C warming, more than 75 percent of the original land can likely be preserved. For these ecosystems, water availability is the dominant determinant of climate suitability (Zelazowski et al., 2011). In general, Asia is substantially less at risk of forest loss than the tropical Americas. However, even at 2°C, the forest in the Indochina peninsula will be at risk of die-back. At 4°C, the area of concern grows to include central Sumatra, Sulawesi, India and the Philippines, where up to 30 percent of the total humid tropical forest niche could be threatened by forest retreat (Zelazowski et al., 2011). There has been substantial scientific debate over the risk of a rapid and abrupt change to a much drier savanna or grassland ecosystem under global warming. This risk has been identified as a possible planetary tipping point at around a warming of 3.5–4.5°C, which, if crossed, would result in a major loss of biodiversity, ecosystem services and the loss of a major terrestrial carbon sink, increasing atmospheric CO2 concentrations (Lenton et al., 2008)(Cox, et al., 2004) (Kriegler, Hall, Held, Dawson, and Schellnhuber, 2009). Substantial uncertainty remains around the likelihood, timing and onset of such risk due to a range of factors including uncertainty in precipitation changes, effects of CO2 concentration increase on water use efficiency and the CO2 fertilization effect, land-use feedbacks and interactions with fire frequency and intensity, and effects of higher temperature on tropical tree species and on important ecosystem services such as pollinators. While climate model projections for the Amazon, and in particular precipitation, remain quite uncertain recent analyses using IPCC AR4 generation climate indicates a reduced risk of a major basin wide loss of precipitation compared to some earlier work. If drying occurs then the likelihood of an abrupt shift to a drier, less biodiverse ecosystem would increase. Current projections indicate that fire occurrence in the Amazon could double by 2050, based on the A2 SRES scenario that involves warming of approximately 1.5°C above pre-industrial levels (Silvestrini et al., 2011), and can therefore be expected to be even higher in a 4°C world. Interactions of climate change, land use and agricultural expansion increase the incidence of fire (Aragão et al., 2008), which plays a major role in the (re)structuring of vegetation (Gonzalez et al., 2010; Scholze et al., 2006). A decrease in precipitation over the Amazon forests may therefore result in forest retreat or transition into a low biomass forest (Malhi et al., 2009). Moderating this risk is a possible increase in ecosystem water use efficiency with increasing CO2 concentrations is accounted for, more than 90 percent of the original humid tropical forest niche in Amazonia is likely to be preserved in the 2°C case, compared to just under half in the 4°C warming case (see Figure 5 in Zelazowski et al., 2011) (Cook, Zeng, and Yoon, 2012; Salazar & Nobre, 2010). Recent work has analyzed a number of these factors and their uncertainties and finds that the risk of major loss of forest due to climate is more likely to be regional than Amazon basin-wide, with the eastern and southeastern Amazon being most at risk (Zelazowski et al., 2011). Salazar and Nobre (2010) estimates a transition from tropical forests to seasonal forest or savanna in the eastern Amazon could occur at warming at warming of 2.5–3.5°C when CO2 fertilization is not considered and 4.5–5.5°C when it is considered. It is important to note, as Salazar and Nobre (2010) point out, that the effects of deforestation and increased fire risk interact with the climate change and are likely to accelerate a transition from tropical forests to drier ecosystems. Increased CO2 concentration may also lead to increased plant water efficiency (Ainsworth and Long, 2005), lowering the risk of plant die-back, and resulting in vegetation expansion in many regions, such as the Congo basin, West Africa and Madagascar (Zelazowski et al., 2011), in addition to some dry-land ecosystems (Heyder et al., 2011). The impact of CO2 induced ‘greening’ would, however, negatively affect biodiversity in many ecosystems. In particular encroachment of woody plants into grasslands and savannahs in North American grassland and savanna communities could lead to a decline of up to 45 percent in species richness ((Ratajczak and Nippert, 2012) and loss of specialist savanna plant species in southern Africa (Parr, Gray, and Bond, 2012). Mangroves are an important ecosystem and are particularly vulnerable to the multiple impacts of climate change, such as: rise in sea levels, increases in atmospheric CO2 concentration, air and water temperature, and changes in precipitation patterns. Sea-level rise can cause a loss of mangroves by cutting off the flow of fresh water and nutrients and drowning the roots (Dasgupta, Laplante et al. 2010). By the end of the 21st century, global mangrove cover is projected to experience a significant decline because of heat stress and sea-level rise (Alongi, 2008; Beaumont et al., 2011). In fact, it has been estimated that under the A1B emissions scenario (3.5°C relative to pre-industrial levels) mangroves would need to geographically move on average about 1 km/year to remain in suitable climate zones (Loarie et al., 2009). The most vulnerable mangrove forests are those occupying low-relief islands such as small islands in the Pacific where sea-level rise is a dominant factor. Where rivers are lacking and/ or land is subsiding, vulnerability is also high. With mangrove losses resulting from deforestation presently at 1 to 2 percent per annum (Beaumont et al., 2011), climate change may not be the biggest immediate threat to the future of mangroves. However if conservation efforts are successful in the longer term climate change may become a determining issue (Beaumont et al., 2011). Coral reefs are acutely sensitive to changes in water temperatures, ocean pH and intensity and frequency of tropical cyclones. Mass coral bleaching is caused by ocean warming and ocean acidification, which results from absorption of CO2 (for example, Frieler et al., 2012a). Increased sea-surface temperatures and a reduction of available carbonates are also understood to be driving causes of decreased rates of calcification, a critical reef-building process (De’ath, Lough, and Fabricius, 2009). The effects of climate change on coral reefs are already apparent. The Great Barrier Reef, for example, has been estimated to have lost 50 percent of live coral cover since 1985, which is attributed in part to coral bleaching because of increasing water temperatures (De’ath et al., 2012). Under atmospheric CO2 concentrations that correspond to a warming of 4°C by 2100, reef erosion will likely exceed rates of calcification, leaving coral reefs as “crumbling frameworks with few calcareous corals” (Hoegh-Guldberg et al., 2007). In fact, frequency of bleaching events under global warming in even a 2°C world has been projected to exceed the ability of coral reefs to recover. The extinction of coral reefs would be catastrophic for entire coral reef ecosystems and the people who depend on them for food, income and shoreline. Reefs provide coastal protection against coastal floods and rising sea levels, nursery grounds and habitat for a variety of currently fished species, as well as an invaluable tourism asset. These valuable services to often subsistence-dependent coastal and island societies will most likely be lost well before a 4°C world is reached. The preceding discussion reviewed the implications of a 4°C world for just a few examples of important ecosystems. The section below examines the effects of climate on biological diversity Ecosystems are composed ultimately of the species and interactions between them and their physical environment. Biologically rich ecosystems are usually diverse and it is broadly agreed that there exists a strong link between this biological diversity and ecosystem productivity, stability and functioning (McGrady-Steed, Harris, and Morin, 1997; David Tilman, Wedin, and Knops, 1996)(Hector, 1999; D Tilman et al., 2001). Loss of species within ecosystems will hence have profound negative effects on the functioning and stability of ecosystems and on the ability of ecosystems to provide goods and services to human societies. It is the overall diversity of species that ultimately characterizes the biodiversity and evolutionary legacy of life on Earth. As was noted at the outset of this discussion, species extinction rates are now at very high levels compared to the geological record. Loss of those species presently classified as ‘critically endangered’ would lead to mass extinction on a scale that has happened only five times before in the last 540 million years. The loss of those species classified as ‘endangered’ and ‘vulnerable’ would confirm this loss as the sixth mass extinction episode (Barnosky 2011). Loss of biodiversity will challenge those reliant on ecosystems services. Fisheries (Dale, Tharp, Lannom, and Hodges, 2010), and agronomy (Howden et al., 2007) and forestry industries (Stram & Evans, 2009), among others, will need to match species choices to the changing climate conditions, while devising new strategies to tackle invasive pests (Bellard, Bertelsmeier, Leadley, Thuiller, and Courchamp, 2012). These challenges would have to be met in the face of increasing competition between natural and agricultural ecosystems over water resources. Over the 21st-century climate change is likely to result in some bio-climates disappearing, notably in the mountainous tropics and in the poleward regions of continents, with new, or novel, climates developing in the tropics and subtropics (Williams, Jackson, and Kutzbach, 2007). In this study novel climates are those where 21st century projected climates do not overlap with their 20th century analogues, and disappearing climates are those 20th century climates that do not overlap with 21st century projected climates. The projections of Williams et al (2007) indicate that in a 4°C world (SRES A2), 12–39 percent of the Earth’s land surface may experience a novel climate compared to 20th century analogues. Predictions of species response to novel climates are difficult because researchers have no current analogue to rely upon. However, at least such climates would give rise to disruptions, with many current species associations being broken up or disappearing entirely. Under the same scenario an estimated 10–48 percent of the Earth’s surface including highly biodiverse regions such as the Himalayas, Mesoamerica, eastern and southern Africa, the Philippines and the region around Indonesia known as Wallacaea would lose their climate space. With limitations on how fast species can disperse, or move, this indicates that many species may find themselves without a suitable climate space and thus face a high risk of extinction. Globally, as in other studies, there is a strong association apparent in these projections between regions where the climate disappears and biodiversity hotspots. Limiting warming to lower levels in this study showed substantially reduced effects, with the magnitude of novel and disappearing climates scaling linearly with global mean warming. More recent work by Beaumont and colleagues using a different approach confirms the scale of this risk (Beaumont et al., 2011, Figure 36). Analysis of the exposure of 185 eco-regions of exceptional biodiversity (a subset of the so-called Global 200) to extreme monthly temperature and precipitation conditions in the 21st century compared to 1961–1990 conditions shows that within 60 years almost all of the regions that are already exposed to substantial environmental and social pressure, will experience extreme temperature conditions based on the A2 emission scenario (4.1°C global mean temperature rise by 2100) (Beaumont et al., 2011). Tropical and sub-tropical eco-regions in Africa and South America are particularly vulnerable. Vulnerability to such extremes is particularly acute for high latitude and small island biota, which are very limited in their ability to respond to range shifts, and to those biota, such as flooded grassland, mangroves and desert biomes, that would require large geographical displacements to find comparable climates in a warmer world. The overall sense of recent literature confirms the findings of the AR4 summarized at the beginning of the section, with a number of risks such as those to coral reefs occurring at significantly lower temperatures than estimated in that report. Although non-climate related human pressures are likely to remain a major and defining driver of loss of ecosystems and biodiversity in the coming decades, it is also clear that as warming rises so will the predominance of climate change as a determinant of ecosystem and biodiversity survival. While the factors of human stresses on ecosystems are manifold, in a 4°C world, climate change is likely to become a determining driver of ecosystem shifts and large-scale biodiversity loss (Bellard et al., 2012; New et al., 2011). Recent research suggests that large-scale loss of biodiversity is likely to occur in a 4°C world, with climate change and high CO2 concentration driving a transition of the Earth´s ecosystems into a state unknown in human experience. Such damages to ecosystems would be expected to dramatically reduce the provision of ecosystem services on which society depends (e.g., hydrology—quantity flow rates, quality; fisheries (corals), protection of coastline (loss of mangroves). Barnosky has described the present situation facing the biodiversity of the planet as “the perfect storm” with multiple high intensity ecological stresses because of habitat modification and degradation, pollution and other factors, unusually rapid climate change and unusually high and elevated atmospheric CO2 concentrations. In the past, as noted above, this combination of circumstances has led to major, mass extinctions with planetary consequences. Thus, there is a growing risk that climate change, combined with other human activities, will cause the irreversible transition of the Earth´s ecosystems into a state unknown in human experience (Barnosky et al., 2012).

#### Scenario C is Carbon Dioxide

#### Current Carbon emissions guarantee ocean acidification – only reversing these trends ensures ocean resiliency – the alternative collapses marine life

Potsdam Institute, 2012 (Potsdam Institute for Climate Impact Research and Climate Analytics, “Turn Down the Heat: Why a 4°C Warmer World Must be Avoided”, A report for the World Bank, November, http://climatechange.worldbank.org/sites/default/files/Turn\_Down\_the\_heat\_Why\_a\_4\_degree\_centrigrade\_warmer\_world\_must\_be\_avoided.pdf)

The high emission scenarios would also result in very high carbon dioxide concentrations and ocean acidification, as can be seen in Figure 25 and Figure 26. The increase of carbon dioxide concentration to the present-day value of 390 ppm has caused the pH to drop by 0.1 since preindustrial conditions. This has increased ocean acidity, which because of the logarithmic scale of pH is equivalent to a 30 percent increase in ocean acidity (concentration of hydrogen ions). The scenarios of 4°C warming or more by 2100 correspond to a carbon dioxide concentration of above 800 ppm and lead to a further decrease of pH by another 0.3, equivalent to a 150 percent acidity increase since preindustrial levels. Ongoing ocean acidification is likely to have very severe consequences for coral reefs, various species of marine calcifying organisms, and ocean ecosystems generally (for example, Vézina & Hoegh-Guldberg 2008; Hofmann and Schellnhuber 2009). A recent review shows that the degree and timescale of ocean acidification resulting from anthropogenic CO2 emissions appears to be greater than during any of the ocean acidification events identified so far over the geological past, dating back millions of years and including several mass extinction events (Zeebe 2012). If atmospheric CO2 reaches 450 ppm, coral reef growth around the world is expected to slow down considerably and at 550 ppm reefs are expected to start to dissolve (Cao and Caldeira 2008; Silverman et al. 2009). Reduced growth, coral skeleton weakening, and increased temperature dependence would start to affect coral reefs already below 450 ppm. Thus, a CO2 level of below 350 ppm appears to be required for the long-term survival of coral reefs, if multiple stressors, such as high ocean surface-water temperature events, sea-level rise, and deterioration in water quality, are included (Veron et al. 2009). Based on an estimate of the relationship between atmospheric carbon dioxide concentration and surface ocean acidity (Bernie, Lowe, Tyrrell, and Legge 2010), only very low emission scenarios are able to halt and ultimately reverse ocean acidification (Figure 26). An important caveat on these results is that the approach used here is likely to be valid only for relatively short timescales. If mitigation measures are not implemented soon to reduce carbon dioxide emissions, then ocean acidification can be expected to extend into the deep ocean. The calculations shown refer only to the response of the ocean surface layers, and once ocean acidification has spread more thoroughly, slowing and reversing this will be much more difficult. This would further add significant stress to marine ecosystems already under pressure from human influences, such as overfishing and pollution.

**Extinction**

Kristof 6 (NICHOLAS D. KRISTOF, American journalist, author, op-ed columnist, and a winner of two Pulitzer Prizes, “Scandal Below the Surface”, Oct 31, 2006, http://select.nytimes.com/2006/10/31/opinion/31kristof.html?\_r=1, CMR)

If you think of the earth’s surface as a great beaker, then it’s filled mostly with ocean water. It is slightly alkaline, and that’s what creates a hospitable home for fish, coral reefs and plankton — and indirectly, higher up the food chain, for us. But scientists have discovered that the carbon dioxide (CO2) we’re spewing into the air doesn’t just heat up the atmosphere and lead to rising seas. Much of that carbon is absorbed by the oceans, and there it produces carbonic acid — the same stuff found in soda pop. That makes oceans a bit more acidic, impairing the ability of certain shellfish to produce shells, which, like coral reefs, are made of calcium carbonate. A recent article in Scientific American explained the indignity of being a dissolving mollusk in an acidic ocean: “Drop a piece of chalk (calcium carbonate) into a glass of vinegar (a mild acid) if you need a demonstration of the general worry: the chalk will begin dissolving immediately.” The more acidic waters may spell the end, at least in higher latitudes, of some of the tiniest variations of shellfish — certain plankton and tiny snails called pteropods. This would **disrupt the food chain,** possibly killing off many whales and fish, and rippling up all the way to humans. We stand, so to speak, on the shoulders of plankton. “There have been a couple of very big events in geological history where the carbon cycle changed dramatically,” said Scott Doney, senior scientist at the Woods Hole Oceanographic Institution in Massachusetts. One was an abrupt warming that took place 55 million years ago in conjunction with acidification of the oceans and **mass extinctions**. Most scientists don’t believe we’re headed toward a man-made variant on that episode — not **yet**, at any rate. But many worry that we’re hurtling into unknown dangers. “Whether in 20 years or 100 years, I think marine ecosystems are going to be dramatically different by the end of this century, and that’ll lead to **extinction events**,” Mr. Doney added. “This is the only habitable planet we have,” he said. “The damage we do is going to be felt by **all the generations to come.”** So that should be one of the great political issues for this century — the vandalism we’re committing to our planet because of our refusal to curb greenhouse gases. Yet the subject is barely debated in this campaign. Changes in ocean chemistry are only one among many damaging consequences of carbon emissions. Evidence is also growing about the more familiar dangers: melting glaciers, changing rainfall patterns, rising seas and more powerful hurricanes. Last year, the World Health Organization released a study indicating that climate change results in an extra 150,000 deaths and five million sicknesses each year, by causing the spread of malaria, diarrhea, malnutrition and other ailments. A report prepared for the British government and published yesterday, the Stern Review on the Economics of Climate Change, warned that inaction “could create risks of major disruption to economic and social activity, on a scale similar to those associated with the great wars and the economic depression of the first half of the 20th century.” If emissions are not curbed, climate change will cut 5 percent to 20 percent of global G.D.P. each year, declared the mammoth report. “In contrast,” it said, “the costs of action — reducing greenhouse gas emissions to avoid the worst impacts of climate change — can be limited to around 1 percent of global G.D.P. each year.” Some analysts put the costs of action higher, but most agree that it makes sense to invest far more in alternative energy sources, both to wean ourselves of oil and to reduce the strain on our planet. We know what is needed: a carbon tax or cap-and-trade system, a post-Kyoto accord on emissions cutbacks, and major research on alternative energy sources. But as The Times’s Andrew Revkin noted yesterday, spending on energy research and development has fallen by more than half, after inflation, since 1979.

#### And, it independently kills plankton

Cheng**,** Ph.D, associated professor at the University of Texas,2007(Victoria. July. Keystone Species Extinction Overview. http://www.arlingtoninstitute.org/wbp/species-extinction/443)

Plankton is a blanket term for many species of microorganisms that drift in open water and make up the base of the aquatic food chain. There are two types of plankton, phytoplankton and zooplankton. Phytoplankton make their own food through the process of photosynthesis, while zooplankton feed on phytoplankton. Zooplankton are in turn eaten by larger animals. In this way these tiny organisms sustain all life in the oceans. According to the NASA, phytoplankton populations in the northern oceans have declined by as much as 30% since 1980.[4] While the cause of this decline remains uncertain, there are several theories.One theory points to global warming as the main cause.[5] Phytoplankton require nutrients obtained from the bottom of the ocean to reproduce. At the Earth’s poles, ocean water is colder at the surface than down in the depths. Therefore water from the bottom of the ocean rises to the top, carrying with it essential nutrients from the ocean floor. However, as the water near the surface becomes warmer due to climate change, less water rises from the bottom, resulting in less nutrients for the phytoplankton. This consequently hinders their reproduction processes.Another theory suggests that carbon dioxide emissions are causing this decline in plankton population. The ocean has always absorbed a significant amount of carbon dioxide, but in recent years its capacity for this pollutant may not have been able to keep up with the level of human output. Recent studies suggest that the carbon dioxide the ocean absorbs is turned into carbonic acid, which lowers the pH level of the ocean.[6] This acidification is highly corrosive to sea animals that form shells, including pteropods, which are a type of zooplankton. Pteropods are a food source for countless larger animals such as salmon and cod. If they are unable to survive in an acidic ocean, then the entire ocean system will be threatened.

#### Extinction – oxygen depletion and food chains

UPI **June 6,** 2008 (http://www.upi.com/Energy\_Resources/2008/06/06/Acidic\_oceans\_may\_tangle\_food\_chain/UPI-84651212763771/print/)

Increased carbon levels in ocean water could have devastating impacts on marine life, scientists testified Thursday at a congressional hearing. Although most of the concern about carbon emissions has focused on the atmosphere and resulting temperature changes, accumulation of carbon dioxide in the ocean also could have disturbing outcomes, experts said at the hearing, which examined legislation that would create a program to study how the ocean responds to increased carbon levels. Ocean surface waters quickly absorb carbon dioxide from the atmosphere, so as carbon concentrations rise in the skies, they also skyrocket in the watery depths that cover almost 70 percent of the planet. As carbon dioxide increases in oceans, the acidity of the water also rises, and this change could affect a wide variety of organisms, said Scott Doney, senior scientist at the Woods Hole Oceanographic Institution, a non-profit research institute based in Woods Hole, Mass. "Greater acidity slows the growth or even dissolves ocean plant and animal shells built from calcium carbonate," Doney told representatives in the House Committee on Energy and the Environment. "Acidification thus threatens a wide range of marine organisms, from microscopic plankton and shellfish to massive coral reefs." If small organisms, like phytoplankton, are knocked out by acidity, the ripples would be far-reaching, said David Adamec, head of ocean sciences at the National Aeronautics and Space Administration. "If the amount of phytoplankton is reduced, you reduce the amount of photosynthesis going on in the ocean," Adamec told United Press International. "Those little guys are responsible for half of the oxygen you're breathing right now." A hit to microscopic organisms can also bring down a whole food chain. For instance, several years ago, an El Nino event wiped out the phytoplankton near the Galapagos Islands. That year, juvenile bird and seal populations almost disappeared. If ocean acidity stunted phytoplankton populations like the El Nino did that year, a similar result would occur -- but it would last for much longer than one year, potentially leading to extinction for some species, Adamec said. While it's clear increased acidity makes it difficult for phytoplankton to thrive, scientists don't know what level of acidity will result in catastrophic damages, said Wayne Esaias, a NASA oceanographer. "There's no hard and fast number we can use," he told UPI. In fact, although scientists can guess at the impacts of acidity, no one's sure what will happen in reality. Rep. Roscoe Bartlett, R-Md., pointed to this uncertainty at Thursday's hearing. "The ocean will be very different with increased levels of carbon dioxide, but I don't know if it will be better or worse," Bartlett said. However, even though it's not clear what the changes will be, the risk of doing nothing could be disastrous for ecosystems, said Ken Caldeira, a scientist at the Carnegie Institution for Science, a non-profit research organization. "The systems that are adapted to very precise chemical or climatological conditions will disappear and be replaced by species which, on land, we call weeds," Caldeira said. "What is the level of irreversible environmental risk that you're willing to take?" It's precisely this uncertainty that the Federal Ocean Acidification Research and Monitoring Act attempts to address. The bill creates a federal committee within the National Oceanic and Atmospheric Administration to monitor carbon dioxide levels in ocean waters and research the impacts of acidification. like Bishop. "We would lose everything," he told UPI.

### Contention Three: Solvency

#### Federal purchase agreements are key to create a market for SMRs and spur private investment

Rosner and Goldberg, 2011 (Robert, senator of the Helmholtz Association for the Research Field Structure of Matter and is currently the William E. Wrather Distinguished Service Professor at the University of Chicago; Stephen, Senior Advisor to the American Academy of Arts & Sciences; “Small Modular Reactors – Key to Future Nuclear Power Generation in the U.S.”, Energy Policy Institute at Chicago (EPIC), The University of Chicago, Contributor: Joseph S. Hezir, Pricipal, EOP Foundation, Inc., Technical Paper, Revision 1, November, <https://epic.sites.uchicago.edu/sites/epic.uchicago.edu/files/uploads/EPICSMRWhitePaperFinalcopy.pdf>)

6.2 GOVERNMENT SPONSORSHIP OF MARKET TRANSFORMATION INCENTIVES Similar to other important energy technologies, such as energy storage and renewables, “**market pull” activities coupled with the traditional “technology push” activities would significantly increase the likelihood of timely and successful commercialization. Market transformation incentives serve two** important **objectives**. **They facilitate demand for the** off-take of **SMR plants**, **thus reducing market risk** **and helping to attract private investment** without high risk premiums. In addition, **if such** market transformation **opportunities could be targeted to higher price electricity markets** or higher value electricity applications**, they would significantly reduce the cost of any companion production incentives.** There are three special market opportunities that may provide the additional market pull needed to successfully commercialize SMRs: the federal government, international applications, and the need for replacement of existing coal generation plants. 6.2.1 **Purchase Power Agreements with Federal Agency Facilities** **Federal facilities could be the initial customer** **for the** output of the LEAD or FOAK **SMR plants**. **The federal government is the largest single consumer of electricity in the U.S**., but its use of electricity is widely dispersed geographically and highly fragmented institutionally (i.e., many suppliers and customers). **Current federal electricity procurement policies do not encourage aggregation of demand, nor do they allow for agencies to enter into long-term contracts that are “bankable” by suppliers**. President **Obama** has sought to place federal agencies in the vanguard of efforts to adopt clean energy technologies and reduce greenhouse gas emissions. Executive Order 13514, issued on October 5, 2009, **calls for reductions in greenhouse gases by all federal agencies**, **with DOE establishing a target of a 28% reduction by 2020**, including greenhouse gases associated with purchased electricity. **SMRs provide** **one** potential **option to meet the** President’s Executive **Order**. **One or more federal agency facilities that can be cost effectively connected to an SMR plant could agree to contract to purchase the bulk of the power output from a privately developed and financed** LEAD **plant**. 46 A LEAD plant, even without the benefits of learning, could offer electricity to federal facilities at prices competitive with the unsubsidized significant cost of other clean energy technologies. Table 4 shows that the LCOE estimates for the LEAD and FOAK-1plants are in the range of the unsubsidized national LCOE estimates for other clean electricity generation technologies (based on the current state of maturity of the other technologies). A**ll of these technologies should experience additional learning improvements over time.** **However**, **as presented earlier in the learning model analysis, the study team anticipates significantly greater learning improvements in SMR technology that would improve the competitive position of SMRs over time.** Additional competitive market opportunities can be identified on a region-specific, technology-specific basis. For example, the Southeast U.S. has limited wind resources. While the region has abundant biomass resources, the estimated unsubsidized cost of biomass electricity is in the range of $90-130 per MWh (9-13¢/kWh), making LEAD and FOAK plants very competitive (prior to consideration of subsidies). 47 **Competitive pricing is an important**, but not the sole, **element to successful SMR deployment**. **A bankable contractual arrangement also is required, and this provides an important opportunity for federal facilities to enter into the necessary purchase power arrangements**. However, to provide a “bankable” arrangement to enable the SMR project sponsor to obtain private sector financing, **the federal agency purchase agreement may need to provide a guaranteed payment for aggregate output, regardless of actual generation output**. 48 **Another challenge is to establish a mechanism to aggregate demand among federal electricity consumers if no single federal facility customer has a large enough demand for the output of an SMR module. The study team believes that highlevel federal leadership, such as that exemplified in E.O. 13514, can surmount these challenges and provide critical initial markets for SMR plants.**

#### SMRs are critical to reducing emissions and preventing catastrophic global warming – any alternative fails

Cohen 2012

[Armond, Executive Director, Clean Air Task Force, 2-13, “Decarbonization: The Nuclear Option,” http://energy.nationaljournal.com/2012/02/is-america-poised-for-nuclear.php?print=true&printcomment=2161670]

Three years ago, **MIT’s** Richard **Lester published** **a simple** **analysis of what would be required to meet** **President** **Obama’s** **83%-by-2050** **greenhouse gas emission reduction target. The results were stark: Even if energy efficiency were to improve at rates 50% better than historical averages, and biofuels were able to meaningfully reduce transportation emissions in the near term (a proposition with which we disagree), meeting Obama’s goal would require retrofitting every existing coal plant in the country with** carbon capture and sequestration (**CCS), building twice again that much fossil capacity with CCS, building close to 3,000 wind farms the size of Massachusetts’ Cape Wind, and building nearly 4,000 solar farms** the size of California’s Ivanpah. **And, having done all that, increasing the amount of nuclear power we generate by a factor of five**. Just on its face, this is a tall order**. The capital investment is jaw-dropping, and it is becoming increasingly difficult to site new energy projects**, regardless of whether they are solar or wind farms, transmission lines, CCS infrastructure, shale gas drilling, or nuclear facilities. More subtly, **integrating these various energy sources—especially balancing output of intermittent renewables in an electric grid with no significant ability to store energy—is a major challenge; it is far from certain it can even be done at very large scale. To maximize our odds of meeting the target, we will need to prioritize development and deployment of technologies that appear capable of growing economically to full scale.¶ Cheap** unscrubbed **natural gas is a “McSolution” to the problem—tempting, but probably not the healthiest long-term choice. In order to make a major contribution to climate abatement, methane emissions from natural gas production and distribution will need to be reduced, and gas-fired power plants will need to use CCS technologies**. And**, although gas in the United States today is sold at prices below production costs, that cannot continue for long, especially in increasingly international markets**. Similarly**, “soft energy paths” like PV power** (also sometimes today sold below cost) **will need significant grid support and zero-carbon balancing to generate meaningful emission reductions. The economic supply curve for large, attractive sites for these projects is bound to bend sharply upwards over time as well. In this context, nuclear power has** potentially significant advantages to offer: **It is demonstrably low-carbon; it provides baseload energy; unlike wind and solar, it has high power density; and, although gas is cheap today, the price of new nuclear power appears to approach that of new coal**. Perhaps more importantly, **the price of new nuclear plants will decline as years pass. Standardization will lead to** some **cost reductions; factory assembly of small, modular units could bring about further step-change reductions** (as it has for automobiles and airplanes) **in production costs**. None of this means that nuclear is poised for a renaissance in the United States. Utilities and their regulators won’t argue with $3 gas, Congress is unwilling to put a price on carbon, and some people remain vehemently opposed to nuclear energy. Ultimately, however, **nuclear energy is** probably **an** indispensible element of any credible plan to substantially decarbonize the country. The Nuclear Regulatory Commission’s recent approval of the new Westinghouse reactor design is good news in this regard, as it should help revitalize the American nuclear industry and keep it moving on a path of continuous improvement. In the longer term, a **host of newer technologies, including passively cooled small reactors, gas-cooled reactors, and reactors with liquid fuels offer significant potential for further improvements in cost and safety. The country would do well to support continued development and deployment of these designs. In an ideal world, we might wait to scale up nuclear power until after we’ve exhausted all efficiency and renewables options**. Unfortunately, however, **we don’t have decades to do this, even if we thought traditional green sources would eventually fill the zero-carbon void, which seems unrealistic. Half of the CO2 emitted today will still be warming the planet 1,000 years from now, and these legacy emissions won’t erase themselves**. We need to develop all low-carbon energy options now to hedge against the risk of serious climate consequences; **nuclear power**, despite its genuine challenges, cannot be left off the table.

#### Nuclear’s inevitable globally but won’t solve warming until the US develops SMR’s

Lovering et al 2012

[Michael, – et al and Ted Nordhaus—co-founders of American Environics and the Breakthrough Institute a think tank that works on energy and climate change – AND – Jesse Jenkins-Director of Energy and Climate Policy, the Breakthrough Institute, Why We Need Radical Innovation to Make New Nuclear Energy Cheap, 9/11, thebreakthrough.org/index.php/programs/energy-and-climate/new-nukes/]

Arguably, the biggest impact of Fukushima on the nuclear debate, ironically, has been to force a growing number of pro-nuclear environmentalists out of the closet, including us. The reaction to the accident by anti-nuclear campaigners and many Western publics put a fine point on the gross misperception of risk that informs so much anti-nuclear fear. Nuclear remains the only proven technology capable of reliably generating zero-carbon energy at a scale that can have any impact on global warming**. Climate change -- and**, for that matter, the enormous present-day **health risks associated with burning coal, oil, and gas** -- simply **dwarf any** legitimate **risk associated with** the operation of **nuclear** power **plants**. About 100,000 people die every year due to exposure to air pollutants from the burning of coal. By contrast, about 4,000 people have died from nuclear energy -- ever -- almost entirely due to Chernobyl.¶ But rather **than simply lecturing our fellow environmentalists about their misplaced priorities, and how profoundly inadequate present-day renewables are as substitutes for fossil energy, we would do better to take seriously the real obstacles standing in the way of a serious nuclear renaissance.** Many of these obstacles have nothing to do with the fear-mongering of the anti-nuclear movement or, for that matter, the regulatory hurdles imposed by the U.S. Nuclear Regulatory Commission and similar agencies around the world**.¶ As long as nuclear technology is characterized by enormous upfront capital costs, it is likely to remain just a hedge against overdependence on** lower-cost coal and **gas**, not the wholesale replacement it needs to be to make a serious dent in climate change. **Developing countries need** large **plants capable of bringing large amounts of new power to their fast-growing economies. But they also need power to be cheap**. So long as **coal** remains the cheapest source of electricity in the developing world, it **is likely to remain king.¶ The most worrying threat to the future of nuclear is**n't the political fallout from Fukushima -- it's **economic reality. Even as new nuclear plants are built in the developing world, old plants are being retired in the developed world.** For example, Germany's plan to phase-out nuclear simply relies on allowing existing plants to be shut down when they reach the ends of their lifetime. Given the size and cost of new conventional plants today, those plants are unlikely to be replaced with new ones. As such, the **combined political and economic constraints associated with current nuclear energy technologies mean that nuclear energy's share of global energy generation is unlikely to grow** in the coming decades, **as global energy demand is likely to increase faster than new plants can be deployed.¶ To move the needle on nuclear energy to the point that it might actually be capable of displacing fossil fuels, we'll need** new nuclear technologies that are cheaper and smaller. Today, there are a range of nascent, smaller nuclear power plant designs, some of them modifications of the current light-water reactor technologies used on submarines, and others, like thorium fuel and fast breeder reactors, which are based on entirely different nuclear fission technologies. Smaller, modular reactors can be built much faster and cheaper than traditional large-scale nuclear power plants. Next-generation nuclear reactors are designed to be incapable of melting down, produce drastically less radioactive waste, make it very difficult or impossible to produce weapons grade material, useless water, and require less maintenance.¶ Most of these designs still face substantial technical hurdles before they will be ready for commercial demonstration. That means a great deal of research and innovation will be necessary to make these next generation plants viable and capable of displacing coal and gas. **The U**nited States **could be a leader on developing these technologies, but unfortunately U.S. nuclear policy remains mostly stuck in the past. Rather than creating new solutions**, efforts to restart **the U.S.** nuclear industry have mostly **focused on encouraging utilities to build the next generation of large,** light-water **reactors with loan guarantees** and various other subsidies and regulatory fixes. With a few exceptions, **this is** largely **true** elsewhere **around the world** as well.¶ Nuclear has enjoyed bipartisan support in Congress for more than 60 years, but the enthusiasm is running out. The Obama administration deserves credit for authorizing funding for two small modular reactors, which will be built at the Savannah River site in South Carolina. But a much more sweeping reform of U.S. nuclear energy policy is required. At present, **the N**uclear **R**egulatory **C**ommission has little institutional knowledge of anything other than light-water reactors and virtually no capability to review or regulate alternative designs. This affects nuclear innovation in other countries as well, since the NRC remains, despite its many critics, the global gold standard for thorough regulation of nuclear energy. Most other countries follow the NRC's lead when it comes to establishing new technical and operational standards for the design, construction, and operation of nuclear plants.¶ What's needed now is a new national commitment to the development, testing, demonstration, and early stage commercialization of a broad range of new nuclear technologies -- from much smaller light-water reactors to next generation ones -- in search of a few designs that can be mass produced and deployed at a significantly lower cost than current designs. This will require both greater public support for nuclear innovation and an entirely different regulatory framework to review and approve new commercial designs.¶ In the meantime, **developing countries will continue to build traditional, large nuclear power plants.** But time is of the essence. **With the lion's share of future carbon emissions coming from those** emerging economic **powerhouses**, the need to develop smaller and cheaper designs that can scale faster is all the more important.¶ A true nuclear renaissance can't happen overnight. And it won't happen so long as large and expensive light-water reactors remain our only option. But in the end, there is no credible path to mitigating climate change without a massive global expansion of nuclear energy. If you care about climate change, nothing is more important than developing the nuclear technologies we will need to get that job done.

#### DOE Cost sharing fails to create a market– plan necessary to make nuclear power cost competitive

DOE 2012

[A Strategic Framework for SMR Deployment, 2-24-12, http://www.ne.doe.gov/smrsubcommittee/documents/SMR%20Strategic%20Framework.pdf]

Four Phases to Commercial Deployment Accomplishing these goals will require a multi-phased deployment from licensing through full scale production and a strategy that adjusts along those stages. We lay out four phases each with a distinct goal but different policy tools may be appropriate for achieving those goals. Phase 1 – Near-term Certification and Licensing The first phase of the strategy is to address the licensing challenge described above. The goal for this phase is to complete SMR designs, see those designs certified by the NRC and have projects licensed to build and operate these reactors. Following the request of the Administration and approval from Congress, DOE has an emerging program to accelerate this certification and licensing effort. The five-year $452 million program will provide financial risk mitigation for the costs of working through the NRC review and approval process for up to two SMR designs and associated operating licenses. The successful conclusion of this phase should result in reactor designs that are of sufficient maturity to both meet the safety requirements of the NRC and serve as a solid basis for commercial contracting and cost estimation. Phase 2 – Construction of the First Movers While phase 1 is necessary to provide the initial momentum toward the widespread commercial deployment of SMRs, it may not be sufficient. If the first-of-a-kind SMR power plants produce electricity at costs higher than available alternatives, the market demand for the new technology may not materialize. Widespread deployment of SMRs implies commercial competitiveness; reaching the state of competitiveness may require incentives for market or non-market actors to bear the costs of learning. Phase 2 of the strategic framework is to encourage the construction of the first-of-a-kind SMR plants. These first movers will likely not have the benefit of full factory production as the manufacturing processes will be established through repetition. In fact, it is most likely that the components and modules fabricated for these first plants will be done on specification as prototype parts. The government is well-suited to be the first purchaser of electricity from SMR power plants. Executive Order 13514 establishes ambitious greenhouse-gas reduction goals for Federal agencies 3 that could translate into a premium for clean energy that the government is willing to bear but is not currently valued by the private sector. The President’s Council of Advisors for Science and Technology has called attention to the potential leverage that the government has to use its purchasing power to advance technologies that can support clean energy objectives. 4 A specific policy tool that would be applicable for such first movers would be for the government installations, such as DOE labs or military bases, to enter into power purchase agreements (PPA) with those local utilities that are willing to own and operate SMRs. The output from these SMR power plants would need to be at a price that would enable the utility to make the capital investment for the project. It is too early to discern how such PPAs should be structured but one could see a tradeoff with a high power price for a small number of reactors on one end or a smaller premium spread out over the certainty of a large number of orders on the other. It should be noted that there are specific restrictions limiting the length of PPAs with government facilities, and these limitations may need to be addressed in order to make these arrangements practical. Should it make sense for private entities in favorable markets to act as first movers, the policy tools identified in phase 3 may be appropriate. Phase 3 – Early Adopters Leading to Factories Once the first reactors have been built, the focus shifts to phase 3 – inducing early adopters in the private sector to fill an order book that will be sufficient to warrant the capital investment to establish a fully-configured, fully-staffed SMR factory that will begin working down the learning curve to lower the overall costs. This phase will see the industry transition from building the first units to developing the capability to produce SMRs at a sustained rate. As this transition takes place, suppliers would be expected to leverage existing, excess factory capacity from realms such as the U.S. naval shipbuilding industry. The vision is that by 2030, the industry will have built on the order of twenty units and dedicated factories will be in place leading to the final phase of the commercialization process. The expectation is that this wave of orders will move beyond government purchases to those by private companies for electricity production in favorable markets. PPAs for government sites beyond the first movers will likely provide a subset of these early adopters. For utilities looking to sell electricity their broad customer base, government policies may be an important element of the deployment strategy by providing incentives for these companies. Policies to spur early adopters could include credits for the production of electricity from early SMRs, offsetting investment challenges through tax credits or some form of loan guarantee. Policies intended to spur manufacturing could be applicable to the investment decisions for building SMR factories. Wider-reaching proposals such as government corporations to demonstrate new energy technologies may provide additional opportunities for alleviating constraints, as well. This range of policy tools would almost certainly require broad Congressional support and action. Phase 4 – Sustained Factory Production of SMRs As initial factories are improved and expanded and new ones are built, the mature industry could result in a total output on the order of 50 SMRs per year by 2040 or sooner. This account presumes that most of the deployment is targeted for the U.S.; however, should a vibrant export market materialize – a distinct possibility – the throughput would need to scale accordingly. There may be a role for public policies in this phase, but they would be less about the development of SMR technology than promoting the domestic use of clean power. The appropriate policy tools in this stage would be those that seek to fundamentally reshape how energy is used in the economy over the long-term such as a carbon tax, a cap and trade system, or clean energy standards. In addition, in order to promote the development of domestic manufacturing sector, the government could consider the use of manufacturing tax credits or other such incentives to bolster this segment of the economy.

#### Nuclear power is necessary to avoid four degrees warming

Comeau 3-12

[Steve, a database programmer and a member of Local Motion, a Burlington-based group that promotes people-powered transportation, “Comeau: Nuclear power can be tool in avoiding global warming”, http://vtdigger.org/2013/03/12/comeau-nuclear-power-can-be-tool-in-avoiding-global-warming/]

Nuclear power is used to generate electricity, primarily replacing the use of coal for that purpose. In the two years since the Fukushima-Daiichi nuclear facility disaster hundreds of thousands of people worldwide have died from air pollution related to burning coal. According to the World Health Organization, “Urban outdoor air pollution is estimated to cause 1.3 million deaths worldwide per year.” Much of that pollution can be attributed to coal, which accounts for over 40 percent of electricity generated in the world. Burning coal produces massive amounts of waste products including fly ash, sulfur dioxide, mercury, and other heavy metals. Burning coal is bad for the environment and human health. But the biggest issue with burning coal is that it is the largest contributor of CO2 emissions, and therefore a huge contributor to human-caused global warming. To make progress on reducing CO2 emissions related to global warming, coal needs to stay in the ground. Of course there are many political and economic forces that make this close to impossible, but it can only be done if the electricity produced by coal is replaced. The replacements available for that purpose are natural gas, renewable energy, and nuclear power. These all have issues and risks, but are far cleaner and with fewer health consequences than coal. There are many interesting developments that will allow nuclear power to be safer, produce less waste, and even use up the existing nuclear waste. Bill Gates is promoting a company called TerraPower, developing the Traveling Wave Reactor. Environmentalist Stewart Brand, editor of the Whole Earth Catalog, supports nuclear power and the development of integral fast reactors that use uranium more efficiently and can use waste from other reactors. James Hansen, a leading climate scientist and now an activist, also supports third- and fourth-generation nuclear reactors as a way to avert climate change. The projections from a variety of sources depict that CO2 emissions will decline slowly in the United States and likely continue to increase around the world — so pretty much a “business-as-usual” scenario. A report by PricewaterhouseCoopers, “Too late for two degrees,” shows that in 2001 the world energy related emissions grew by 3 percent. China’s emissions grew by 9.4 percent, but emissions in the United States dropped by 1.9 percent, in part due to a mild winter. The most revealing and useful metric is the CO2 measurements taken at the Mauna Loa Observatory in Hawaii since 1959. Based on the trend of the CO2 measurements over the past 20 years, the atmospheric CO2 level — currently at 396 ppm (parts per million) — will reach 450 ppm in 2034. This is approximately the level of CO2 where the average global temperature will increase by 2 degrees (3.6 degrees F) over the pre-industrial level. Based on the latest climate change science, disruptive climate change is occurring now and will continue to occur with increased warming. That part is certain. What is uncertain is the intensity and timing of the transition to dangerous climate change, the threshold which is thought to be 2 degrees C of warming over the pre-industrial level. According to a report published in November 2012 by the World Bank, titled “Turn Down the Heat — Why a 4℃ Warmer World Must be Avoided,” if the current commitments and pledges for reducing emissions are not fully implemented, warming of 4 degrees C (7.2 degrees F) could occur as early as the 2060s. This level of warming will likely produce enormous environmental harm, as well as social and economic disruption. I encourage everyone to download and read this World Bank report. We need a greater understanding and appreciation of the magnitude of the projected harm that dangerous climate change can cause. People will adapt to climate change, but that adaptation will include migration and displacement that is orders of magnitude greater than that caused by the Fukushima-Daiichi nuclear facility disaster. That adaptation will include the abandonment of large cities flooded by a rising sea and migration from regions parched by drought. The warming and CO2 levels will last for centuries and change the world ecosystems. To postpone or avert the greatest harm from climate change it is necessary to accept the risks and potential harm that come with nuclear power, renewable energy, and natural gas, because the alternative is so much worse. The environmentalist positions against the energy technologies that offer effective solutions for replacement of coal are not helpful. As stated in the World Bank report: “The projected 4℃ warming must not be allowed to occur — the heat must be turned down.”

#### Only SMRs solve – risk premiums

Rosner and Goldberg 2011

(Robert, senator of the Helmholtz Association for the Research Field Structure of Matter and is currently the William E. Wrather Distinguished Service Professor at the University of Chicago; Stephen, Senior Advisor to the American Academy of Arts & Sciences; “Small Modular Reactors – Key to Future Nuclear Power Generation in the U.S.”, Energy Policy Institute at Chicago (EPIC), The University of Chicago, Contributor: Joseph S. Hezir, Pricipal, EOP Foundation, Inc., Technical Paper, Revision 1, November, <https://epic.sites.uchicago.edu/sites/epic.uchicago.edu/files/uploads/EPICSMRWhitePaperFinalcopy.pdf>)

According to a recent study issued by the Texas Institute, **the historical record of commercial nuclear power plant construction by U.S. investor-owned utilities showed an almost 70% probability that the utility would experience a rating downgrade** of uncertain magnitude. 19,20 It should be noted that this study was based upon the corporate finance structures that were in place in the 1980s and 1990s. These structures are not representative of today’s financing vehicles that are based on limited recourse arrangements. **The study team developed a conceptual model to examine the impacts of size risk on WACC** (described in Appendix F). **The study team compared the WACC for conventional investments versus large nuclear investments, based on the size risk**, implicit to the financial strength, **as measured by Moody’s. The model indicates that investments in large nuclear projects** (approximately $6-7 billion) **exhibit significantly higher WACC as compared with conventional energy investments** (approximately $2-3 billion). 21 **According to a** Congressional Budget Office (**CBO) report**, **Moody’s recently reported that it was considering taking a more negative view of bond issuers who were seeking to finance the construction of new nuclear plants**. **A primary concern cited by Moody’s was whether the proposed plants were economically viable**, especially given uncertainties about the effects of energy efficiency programs and national clean electricity standards on the demand for new nuclear generating capacity, the availability of capital in such projects, and the effect of such investment on the sponsoring utilities’ balance sheets. 22 Furthermore**, CBO discussed the market risk associated with GW-scale plants:** **Market risk is the component of risk that investors cannot protect themselves against** by diversifying their portfolios. **Investors require compensation for market risk because investments exposed to such risk are more likely to have low returns when the economy as a whole is weak and resources are more highly valued**…**In the case of nuclear construction guarantees provided to investor-owned utilities or merchant power providers,** for example, **plant construction may be more likely to be slowed or canceled when** the **demand** for electricity **is depressed by a weak economy**. 23,24 **SMRs could** potentially **mitigate such a risk** in several ways. **First**, **SMRs have lower precompletion risk due to shorter construction schedules** (24-36 months as compared with 48 months). **Second, because of their smaller size, SMRs have lower market risk because there is significantly less power than needs to be sold** as compared with GW-level plants. Finally, **the modular nature of SMRs affords the flexibility to build capacity on an as-needed basis.** In the case of unsubsidized financing, particularly relevant to merchant markets, **utility decision makers that have significant aversion to risk of future natural gas spikes** (i.e., gas prices rising to about $7/Mcf or one standard deviation above the recent average behavior of natural gas prices) **would possibly view alternatives to gas-fired generation as attractive options**, particularly if the investment requirements are comparable – **SMRs could potentially “fit the bill.”**

### Contention Four: Warming Outweighs

#### Err aff on probability – risks of major war are almost ZERO

Fettweis 2006

[Christopher, National Security Decision Making Department, US Naval War College, “A Revolution in International Relation Theory: Or, What If Mueller Is Right?” International Studies Review (2006) 8, 677–697]

The obsolescence-of-major-war argument is familiar enough to need little introduction (Mueller 1989, 1995, 2004; see also Rosecrance 1986, 1999; Ray 1989; Kaysen 1990; Van Evera 1990–1991; Kegley 1993; Jervis 2002; Mandelbaum 2002). In its most basic and common form, the thesis holds that **a broad shift in attitudes toward warfare has occurred within the most powerful states of the international system, virtually removing the possibility for the kind of war that pits the strongest states against each other. Major wars**, fought by the most powerful members of the international system, **are**, in Michael Mandelbaum's (1998/1999:20) words, "somewhere between impossible and unlikely."  The argument is founded upon a traditional liberal faith in the possibility of moral progress within the society of great powers, which has created for the first time "an almost universal sense that the deliberate launching of a war can no longer be justified" (Ray 1989:425; also Luard 1986, 1989). To use Francis Fukayama's (1992) phrase**, it is the "autonomous power of ideas" that has brought major war to an end. Whereas past leaders were at times compelled by the masses to use force in the defense of the national honor, today popular pressures urge peaceful resolutions to disputes between industrialized states. This normative shift has all but removed warfare from the set of options before policymakers, making it a** highly unlikely outcome. Mueller (1989:11) has referred to the abolition of slavery and dueling as precedents. "Dueling, a form of violence famed and fabled for centuries, is avoided not merely because it has ceased to seem 'necessary,' but because it has sunk from thought as a viable, conscious possibility. You can't fight a duel if the idea of doing so never occurs to you or your opponent." By extension, states cannot fight wars if doing so does not occur to them or to their opponent. Major war has become, in Mueller's words, "sub-rationally unthinkable."  Obviously, the obsolescence-of-major-war argument is not without critics. First, and most basic, the literature is sometimes quite vague about what constitutes a "major war" and who exactly the "great powers" are. In Retreat from Doomsday, Mueller (1989) alternately describes his data set as consisting of "developed countries" (p. 4), the "first and second worlds" (p. 256), the "major and not-so-major countries" (p. 5), and the 44 wealthiest states (p. 252). Others refer to the great powers as those states with a certain minimum standard of living, especially those in Europe (Luard 1986:398); modern, "industrial societies" (Kaysen 1990); the "leading global powers" (Väyrynen 2006:13); or merely "the most powerful members of the international system" (Mandelbaum 1998/1999:21). What constitutes a "major" war is also often left unclear. Some analyses use arbitrary quantitative values (for example, 1,000 battle deaths); others study only world wars, those fought by the most powerful members of the international system, drawing on all their resources, with the potential to lead to outcomes of "revolutionary geopolitical consequences including the birth and death of regimes, the redrawing of borders, and the reordering of the hierarchy of sovereign states" (Mandelbaum 1998/1999:20).  **Definitions are often the last refuge of academic scoundrels—many IR theories deal with potentially contradictory information by simply refining or redefining the data under consideration. Perhaps the best way to avoid this pitfall is to err on the side of inclusion, expanding the analysis as broadly as possible. While the obsolescence-of-major-war argument clearly covers the kind of catastrophic wars that Mandelbaum analyzes, any big war between industrialized, powerful states would render the proposition false. At its essence, like pornography, one knows major war when one sees it.** Major powers will likely occasionally deem it in their interest to strike the minor, and at times small, states, especially those led by nondemocratic, unenlightened leaders. **But societal unease at the continuation of small wars—such as those in Afghanistan and Iraq or between poor, weak states like Ethiopia and Eritrea—should be ameliorated by the knowledge that, for the first time in history, world war is exceedingly unlikely**. Determining which states are great powers is slightly more complicated, but not by much. Two decades ago, Jack Levy (1983:10) noted that the importance of the concept of "great power" was not matched by anything approaching analytical precision in its use and the field has not progressed much since. Relevant states for this analysis are those with the potential to be great powers, whether that potential is realized or not. The choice not to devote a large portion of one's national resources toward territorial defense was not available to most states in other, bygone eras. If today's rich states can choose not to prepare for war without consequence, then the nature of the system may well have changed.  Broadly speaking, there is an indirect relationship between the relative level of development and the chances of being involved in a major war against a peer. In its most basic, inclusive, and falsifiable form, the obsolescence-of-major-war argument postulates that the most advanced countries—roughly speaking, those in the global north—are unlikely to fight one another ever again. Precise determination of which countries are in the "north" and which are not is less important than it may seem at first, since current versions of the argument do not restrict themselves to the great powers. As will be discussed below, if the logic behind the obsolescence-of-major-war argument is correct, a drastic diminution of all kinds of war everywhere may be on the horizon. It is important to note that this argument does not suggest that competition is coming to a conclusion, only that the means to compete have changed. Rivalry will continue; envy, hubris, and lust for power will likely never disappear. Rogues and outlaws will probably always plague humanity, but very rarely as leaders of powerful states, especially in the northern democracies. **The Mueller argument merely holds that** war need not follow from any of this, **especially major wars**. States can compete in nonviolent ways, addressing the logic of war with the grammar of commerce, to paraphrase Edward Luttwak (1990:19). The conflicts of the future may be fought in boardrooms rather than battlefields, using diplomacy, sanctions, and the methods of commerce rather than brute force.  One of the obvious strengths of the obsolescence-of-major-war argument is that it carries clear routes to falsification. It can be proven incorrect by virtually any big war in Western Europe, in the Pacific Rim, or in North America. If Japan attacks Australia, if the United States moves north, or if Germany rises again and makes another thrust at Paris and Moscow, Retreat from Doomsday will join The Great Illusion (Angell [1909] 1913) in the skeptical realist's list of utopian fantasies. Until that happens, however, scholars are left to explain one of the great anomalies in the history of the international system.  Most IR scholarship carries on as if such an anomaly simply does not exist. This is especially true of realists, whose theories typically leave little room for fundamental systemic change (Lebow 1994). "The game of politics does not change from age to age," argued a skeptical Colin Gray (1999:163), "let alone from decade to decade." Indeed, the most powerful counterargument to Mueller—and one that is ultimately unanswerable—is that this period of peace will be temporary and that someday these trends will be reversed. Neorealists traditionally contend that the anarchic structure of the system stacks the deck against long-term stability, which accounts for "war's dismal recurrence throughout the millennia," in the words of Kenneth Waltz (1989:44). Other scholars are skeptical about the explanatory power of ideas, at least as independent variables in models of state behavior (Mearsheimer 1994/1995; Brooks and Wohlforth 2000/2001; Copeland 2003).  However, one need not be convinced about the potential for ideas to transform international politics to believe that major war is extremely unlikely to recur. Mueller, Mandelbaum, Ray, and others may give primary credit for the end of major war to ideational evolution akin to that which made slavery and dueling obsolete, but others have interpreted the causal chain quite differently. Neoliberal institutionalists have long argued that complex economic interdependence can have a pacifying effect upon state behavior (Keohane and Nye 1977, 1987). Richard Rosecrance (1986, 1999) has contended that evolution in socio-economic organization has altered **the shortest, most rational route to state prosperity** in ways that **make war unlikely.** Finally, many others have argued that credit for great power peace can be given to the existence of nuclear weapons, which make aggression irrational (Jervis 1989; Kagan et al. 1999). With so many overlapping and mutually reinforcing explanations, at times the end of major war may seem to be overdetermined (Jervis 2002:8–9). For purposes of the present discussion, successful identification of the exact cause of this fundamental change in state behavior is probably not as important as belief in its existence. In other words, the outcome is far more important than the mechanism. The importance of Mueller's argument for the field of IR is ultimately not dependent upon why major war has become obsolete, only that it has.  Almost as significant, all these proposed explanations have one important point in common: they all imply that change will be permanent. Normative/ideational evolution is typically unidirectional—few would argue that it is likely, for instance, for slavery or dueling to return in this century. The complexity of economic interdependence is deepening as time goes on and going at a quicker pace. And, obviously, nuclear weapons cannot be uninvented and (at least at this point) no foolproof defense against their use seems to be on the horizon. The combination of forces that may have brought major war to an end seems to be unlikely to allow its return.  **The twentieth century witnessed an unprecedented pace of evolution in all areas of human endeavor, from science and medicine to philosophy and religion. In such an atmosphere, it is not difficult to imagine that attitudes toward the venerable institution of war may also have experienced rapid evolution and that its obsolescence could become plausible, perhaps even probable, in spite of thousands of years of violent precedent. The** burden of proof **would seem to be on those who maintain that the "rules of the game" of international politics, including the rules of war, are the lone area of human interaction immune to fundamental evolution and that, due to these immutable and eternal rules, war will always be with us. Rather than ask how major war could have grown obsolete, perhaps scholars should ask why anyone should believe that it could not.**

# 2ac

### War

#### No nuclear war – deterrence

Tepperman 2009

[Deputy Editor at Newsweek. Frmr Deputy Managing Editor, Foreign Affairs. LLM, i-law, NYU. MA, jurisprudence, Oxford. (Jonathan, Why Obama Should Learn to Love the Bomb, <http://jonathantepperman.com/Welcome_files/nukes_Final.pdf>, CMR]

The argument that nuclear weapons can be agents of peace as well as destruction rests on two deceptively simple observations. First, nuclear weapons have not been used since 1945. Second, there’s never been a nuclear, or even a nonnuclear, war between two states that possess them. Just stop for a second and think about that: it’s hard to overstate how remarkable it is, especially given the singular viciousness of the 20th century. As Kenneth Waltz, the leading “nuclear optimist” and a professor emeritus of political science at UC Berkeley puts it, “We now have 64 years of experience since Hiroshima. It’s striking and against all historical precedent that for that substantial period, there has not been any war among nuclear states.” To understand why—and why the next 64 years are likely to play out the same way—you need to start by recognizing that **all states are rational** on some basic level. **Their leaders** may be stupid, petty, venal, even evil, but they **tend to do things** only when **they’re** pretty **sure they can get away with** them. Take war: a country will start a fight only when it’s almost certain it can get what it wants at an acceptable price. Not even Hitler or Saddam waged wars they didn’t think they could win. The problem historically has been that leaders often make the wrong gamble and underestimate the other side—and millions of innocents pay the price. **Nuclear weapons** change all that by **mak**ing **the costs of war** obvious, inevitable, and unacceptable. Suddenly, when both sides have the ability to turn the other to ashes with the push of a button— and everybody knows it—the basic math shifts. **Even the craziest** tin-pot dictator is forced to **accept** that **war** with a nuclear state **is unwinnable** and thus not worth the effort. As Waltz puts it, “Why fight if you can’t win and might lose everything?” Why indeed? The iron logic of deterrence and mutually assured destruction is so compelling, it’s led to what’s known as the nuclear peace: the virtually unprecedented stretch since the end of World War II in which all the world’s major powers have avoided coming to blows. They did fight **proxy wars**, ranging from Korea to Vietnam to Angola to Latin America. But these **never matched** the furious destruction of full-on, **great-power war** (World War II alone was responsible for some 50 million to 70 million deaths). And since the end of the Cold War, such bloodshed has declined precipitously. Meanwhile, the nuclear powers have scrupulously avoided direct combat, and there’s very good reason to think they always will. There have been some near misses, but a close look at these cases is fundamentally reassuring—because in each instance, very different leaders all came to the same safe conclusion. Take the mother of all nuclear standoffs: the Cuban missile crisis. For 13 days in October 1962, the United States and the Soviet Union each threatened the other with destruction. But both **countries** soon **stepped back** from the brink **when they recognized** that **a war would** have **mean**t **curtains** for everyone. As important as the fact that they did is the reason why: Soviet leader Nikita Khrushchev’s aide Fyodor Burlatsky said later on, “It is impossible to win a nuclear war, and both sides realized that, maybe for the first time.” The record since then shows the same pattern repeating: **nuclear** armed **enemies** slide toward war, then **pull back**, always for the same reasons. The best recent example is India and Pakistan, which fought three bloody wars after independence before acquiring their own nukes in 1998. Getting their hands on weapons of mass destruction didn’t do anything to lessen their animosity. But it did dramatically mellow their behavior. Since acquiring atomic weapons, the two sides have never fought another war, despite severe provocations (like Pakistani-based terrorist attacks on India in 2001 and 2008). They have skirmished once. But during that flare-up, in Kashmir in 1999, both countries were careful to keep the fighting limited and to avoid threatening the other’s vital interests. Sumit Ganguly, an Indiana University professor and coauthor of the forthcoming India, Pakistan, and the Bomb, has found that on both sides, officials’ thinking was strikingly similar to that of the Russians and Americans in 1962. The prospect of war brought Delhi and Islamabad face to face with a nuclear holocaust, and leaders in each country did what they had to do to avoid it.

#### Interdependence checks

Deudney 2009

(Daniel Prof of Pol Sci, and Ikenberry, Prof of International Affairs, and John, Prof of Pol Sci at John Hopkins and Prof of International Affairs at Princeton, “Why Liberal Democracy Will Prevail” <http://www.nwc.navy.mil/events/csf/readings/AutocraticRevival.aspx>, CMR)

This **bleak outlook is based on** an exaggeration of recent developments **and ignores powerful** countervailing factors and **forces**. Indeed, contrary to what the revivalists describe, **the most striking features of the** contemporary **international landscape are** the intensification of economic **globalization**, thickening **institutions**, and shared problems of **interdependence**. The overall structure of the international system today is quite unlike that of the nineteenth century. Compared to older orders, the **contemporary liberal**-centered international **order provides** a set of **constraints** and opportunities — of pushes and pulls — **that** reduce the likelihood of severe conflict while creating strong imperatives for cooperative problem solving. Those invoking the nineteenth century as a model for the twenty-first also fail to acknowledge the extent to which war as a path to conflict resolution and great-power expansion has become largely obsolete. Most important, **nuclear weapons have transformed great-power war** from a routine feature of international politics **into** an exercise in national suicide. With all of the great powers possessing nuclear weapons and ample means to rapidly expand their deterrent forces, **warfare** among these states **has** truly **become** an option of **last resort**. The prospect of such great losses has instilled in the great powers a level of caution and restraint that effectively precludes major revisionist efforts. Furthermore, the diffusion of small arms and the near universality of nationalism have severely limited the ability of great powers to conquer and occupy territory inhabited by resisting populations (as Algeria, Vietnam, Afghanistan, and now Iraq have demonstrated). Unlike during the days of empire building in the nineteenth century, states today cannot translate great asymmetries of power into effective territorial control; at most, they can hope for loose hegemonic relationships that require them to give something in return. Also unlike in the nineteenth century, today the density of trade, investment, and production networks across international borders raises even more the costs of war. A Chinese invasion of Taiwan, to take one of the most plausible cases of a future interstate war, would pose for the Chinese communist regime daunting economic costs, both domestic and international. Taken together**, these changes** in the economy of violence **mean** that **the international system is** far more primed for peace than the autocratic revivalists acknowledge.

**No nuke winter - studies**

Seitz 2011

(Russell, Harvard University Center for International Affairs visiting scholar, “Nuclear winter was and is debatable,” Nature, 7-7-11, Vol 475, pg37, accessed 9-27-11, CMR)

Alan Robock's contention that there has been no real scientific debate about the 'nuclear winter' concept is itself **debatable** (Nature 473, 275–276; 2011). This potential climate disaster, popularized in Science in 1983, rested on the output of a one-dimensional model that was later shown to overestimate the smoke a nuclear holocaust might engender. More refined estimates, combined with advanced three-dimensional models (see http://go.nature.com.libproxy.utdallas.edu/kss8te), have dramatically reduced the extent and severity of the projected cooling. Despite this, Carl Sagan, who co-authored the 1983 Science paper, went so far as to posit “the extinction of Homo sapiens” (C. Sagan Foreign Affairs 63, 75–77; 1984). Some regarded this apocalyptic prediction as **an exercise in mythology**. George Rathjens of the Massachusetts Institute of Technology protested: “Nuclear winter is **the worst example of the misrepresentation of science to the public in my memory**,” (see http://go.nature.com.libproxy.utdallas.edu/yujz84) and climatologist Kerry Emanuel observed that the subject had “become **notorious for its lack of scientific integrity”** (Nature 319, 259; 1986). Robock's single-digit fall in temperature is at odds with the subzero (about −25 °C) continental cooling originally projected for a wide spectrum of nuclear wars. Whereas Sagan predicted darkness at noon from a US–Soviet nuclear conflict, Robock projects global sunlight that is several orders of magnitude brighter for a Pakistan–India conflict — literally the difference between night and day. Since 1983, the projected worst-case cooling has fallen from a Siberian deep freeze spanning 11,000 degree-days Celsius (a measure of the severity of winters) to numbers so unseasonably small as to call the very term 'nuclear winter' into question.

### Makhijani

#### Is wrong

Barton 10

Charles, frmr PhD Candidate in History, MA in Philsophy, worked on the LFTR concept for about 2/3eds of his ORNL career and recognized by nuclear bloggers most of whom have technical training, and has been mentioned by the Wall Street Journal, “Arjun Makhijani and the Modular Small Reactor null-hypothesis” October 2, 2010, http://nucleargreen.blogspot.com/2010/10/arjun-makhijani-and-modular-small.html)

Arjun Makhijani (with Michele Boyd) has recently published a fact sheet on Small Modular Reactors which in effect advertises itself as the null-hypothesis to the case I an others have been making for some time on the advantages of small reactors. Small Modular ReactorsNo Solution for the Cost, Safety, and Waste Problems of Nuclear Power, Makhijani's title proclaims. But what is the evidence that backs Makhijani's case up. As it turns out **Makhijani offers no empirical data to back up his assertion, so as an example of scientific reasoning,** Makhijani's fact sheet rates an F.

### Ice Age

#### 4. No ice age coming

Rice 5-17-2012 (Stanley, Professor of Biological Sciences at Southeastern Oklahoma State University, “GLOBAL WARMING, GLOBAL DISRUPTION”, http://stanleyrice.com/presentations/Global\_Warming\_May\_2012.pdf)

First, over the last 400,000 years, there have been four ice ages. Right now, global temperatures are as warm as they have ever been during any previous interglacial period. If Michael Mann is right, even warmer. Second, global temperature and atmospheric carbon dioxide are pretty precisely correlated: it is hot when the air has more carbon dioxide in it. Third, the current levels of carbon dioxide far exceed the carbon dioxide levels of any time in the last half million years. What this may mean is that we have yet to see most of the global warming that all of that extra carbon dioxide will cause. The Earth has just put its sweater on during the last century—watch out!

#### 5. No offense – enough CO2 to offset ice age now, adding more is catastrophic.

AFP 2008[“CO2 may prevent next Ice Age: study”, http://www.abc.net.au/science/articles/2008/11/13/2418491.htm]

Scheduled shifts in the earth's orbit should plunge the planet into a deep freeze thousands of years from now, but current changes to our atmosphere may stop it from occurring, say scientists. Professor Thomas Crowley of the University of Edinburgh, and Dr William Hyde of the University of Toronto report in the journal Nature that the current level of carbon dioxide (CO2) in our atmosphere could negate the onset of the next Ice Age, which could occur 10,000 years from now. But they caution that their finding is not an argument in favour of global warming, which is driving imminent and potentially far-reaching damage to the climate system. Earth has experienced long periods of extreme cold over the billions of years of its history. The big freezes are interspersed with "interglacial" periods of relative warmth, of the kind we have experienced since the end of the last Ice Age, around 11,000 years ago. These climate swings have natural causes, believed to be due to changes in the earth's orbit and axis that, while minute, have a powerful effect on how much solar heat falls on the planet. Abrupt changes The researchers built a computer model to take a closer look at these phases of cooling and warmth. In addition to the planetary shifts, they also factored in levels of CO2, found in tiny bubbles in ice cores, which provide an indicator of temperature spanning hundreds of thousands of years. They found dramatic swings in climate, including changes when the earth flipped from one state to the other, which occur in a relatively short time, says Crowley. These shifts, called "bifurcations," appear to happen in abrupt series, which is counter-intuitive to the idea that the planet cools or warms gradually. "You had a big change about a million years ago, then a second change around 650,000 years ago, when you had bigger glaciations, then 450,000 years ago, when you started to get more repeated glaciations," says Thomas. "What's also interesting is that the inter-glaciations also became warmer." According to the model the next "bifurcation" would normally be due between 10,000 and 100,000 years from now. The chill would induce a long, stable period of glaciation in the mid-latitudes, smothering Europe, Asia and parts of North America with a thick sheet of ice. But Crowley says there is now enough CO2 in the air, as a result of fossil-fuel burning and deforestation, to offset any future cooling impacts due to orbital shift, says Crowley. "Even the level that we have there now is more than sufficient to reach that critical state seen in the model," he said. "If we cut back [on CO2] some, that would probably still be enough." In September, a scientific research consortium called the Global Carbon Project (GCP) said that atmospheric concentrations of CO2 reached 383 parts per million (ppm) in 2007, or 37% above pre-industrial levels. Present concentrations are "the highest during the last 650,000 years and probably during the last 20 million years," the report says. No green light Crowley cautions those who would seize on the new study to say "carbon dioxide is now good, it prevents us from walking the plank into this deep glaciation." "We don't want to give people that impression," he says. "You can't use this argument to justify [human-induced] global warming." Last year, the UN's Intergovernmental Panel on Climate Change (IPCC) said that greenhouse-gas emissions were already inflicting visible changes to the climate system, especially on ice and snow. Left unchecked, climate change could inflict widespread drought and flooding by the end of the century, translating into hunger, homelessness and other stresses for millions of people.

### ASPEC

**Counter-interpretation – use the agent of the resolution**

**Spec is bad –**

**A. Topic education – encourages Agent counterplan and Disad debates that distract from the core of the topic – that moots the point of switching topics and destroys critical thinking and research**

**B. Overspecifying is worse – it allows the Aff to become a moving target and spike out of Disads**

**3. No resolutional basis – it only requires USFG action, that’s what we’ll defend – anything else is arbitrary**

**Disads solve your impact**

**4. No ground loss – core links are based on increasing assistance, not the agent of action**

**5. Cross-x checks – you could’ve asked**

**( ) We meet “resolved” – we defend an increase, it doesn’t matter what agent does it**

**( ) Doesn’t take out solvency – fiat guarantees no rollback and our counter-interpretation guarantees all the branches work together**

### T

#### We meet – aff doesn’t procure – it is a contract to purchase electricity – their ev concludes we’re T

#### C/I - Financial incentives require the disbursement of public funds linked to energy production – excludes action 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.

#### Prefer it – aff ground – we need answers to cp’s like states – only our interp allows the aff to have core offense against things like the states CP

#### And intent to define – their evidence is outlining incentives in a certain UN project – err aff our interp has an intent to define incentives

#### No ground loss – they get all of their disads

#### No limits explosion – the topic is still manageable

#### Good is good enough – their interp creates a race to the bottom which prevents substantive topic education

### Coercion

#### Energy exists now

#### Extinction is bad – affects everyone we can’t come back from it

#### Inherent equality of all beings requires utilitiarianism

David Cummiskey, Associate Professor of Philosophy @ Bates College & a Ph.D. from UM, 1996, Kantian Consequentialism, Pg. 145-146

In the next section, I will defend this interpretation of the duty of beneficence. For the sake of argument, however, let us first simply assume that beneficence does not require significant self-sacrifice and see what follows. Although Kant is unclear on this point, we will assume that significant self-sacrifices are supererogatory. Thus, if I must harm one in order to save many, the individual whom I will harm by my action is not morally required to affirm the action. On the other hand, I have a duty to do all that I can for those in need. As a consequence **I am faced with a dilemma: If I act, I harm a person in a way that a rational being need not consent to; if I fail to act, then I do not do my duty to those in need and thereby fail to promote an objective end.** Faced with such a choice, which horn of the dilemma is more consistent with the formula of the end-in-itself? **We must not obscure the issue by characterizing this type of case as the sacrifice of individuals for some abstract “social entity.” It is not a question of some persons having to bear the cost for some elusive “overall social good.”** Instead, **the question is whether some persons must bear the inescapable cost for the sake of other persons.** Robert Nozick, for example, argues that “**to use a person in this way does not sufficiently respect and take account of the fact that he [or she] is a separate person, that** ~~his~~ **is the only life he [or she] has.” But why is this not equally true of all those whom we do not save through our failure to act? By emphasizing solely the one who must bear the cost if we act, we fail to sufficiently respect and take account of the many other separate persons, each with only one life, who will bear the cost of our inaction.** In such a situation, what would a conscientious Kantian agent, an agent motivated by the unconditional value of rational beings, choose? **A morally good agent recognizes that the basis of all particular duties is the principle that “rational nature exists as an end in itself.”** Rational nature as such is the supreme objective end of all conduct. **If one truly believes that all** rational beings **have an equal value then the rational solution to such a dilemma involves maximally promoting the lives and liberties of as many** rational beings **as possible**. **In order to avoid this** conclusion, **the non-consequentialist** Kantian **needs to justify agent-centered constraints.** As we saw in chapter 1, however, even most Kantian **deontologists recognize that agent-centered constraints require a non-value based rationale.** But we have seen that Kant’s normative theory is based on an unconditionally valuable end. How can a concern for the value of rational beings lead to a refusal to sacrifice rational beings even when this would prevent other more extensive losses of rational beings? If the moral law is based on the value of rational beings and their ends, then what is the rationale for prohibiting a moral agent from maximally promoting these two tiers of value? **If I sacrifice some for the sake of others, I do not use them arbitrarily, and I do not deny the unconditional value of rational beings. Persons may have “dignity,** that is, **an unconditional and incomparable worth” that transcends any market value, but persons also have a fundamental equality that dictates that some must sometimes give way for the sake of others. The concept of the end-in-itself does not support the view that we may never force another to bear some cost in order to benefit others**. If on focuses on the equal value of all rational beings, then **equal consideration suggests that one may have to sacrifice some to save many**.

### MLP

#### Perm do both

#### CP doesn’t solve any of the aff

Risk

Guaranteed purchase

#### Links to the net benefit – guarantees money for nuclear plants

#### Doesn’t kill innovation

**Xie, ’11** (Yanmei - Nucleonics Week, “Think tanks differ on government's role in SMR development” Inside Stories; Pg. 3 Vol. 52 No. 6)

At an industry-sponsored forum February 7 in Washington, Michael Shellenberger, president of the Breakthrough Institute, said the government has done "far too little" to help advance SMR technologies. According to its website, the Oakland, California-based group is "committed to modernizing liberal thought" on environmental causes. And Shellenberger said the institute believes nuclear energy is the only low-cost source of baseload power that emits no greenhouse gases If the US government is serious about expanding nuclear power, it needs to provide "a much more robust set of R&D investments both for the development and the demonstration and the deployment" of SMR designs, including those for thorium reactors and fast reactors, he said. The IAEA defines small modular reactors as those rated at up to 300 MW. Breakthrough Chairman Ted Nordhaus, who spoke at the same event, said **the government needs to "accelerate the deployment and commercialization" of SMRs** through a "procurement mechanism." A policy paper on energy innovation released by Breakthrough last fall urged that the departments of Energy and Defense "procure and demonstrate small modular reactors at DOE nuclear facilities and DOD military bases." The Washington-based Heritage Foundation, however, warned last week that government subsidies would stifle innovation in the fledgling SMR industry instead of nurturing it. The Heritage Foundation, which promotes conservative values including free enterprise and limited government, released a report February 2 in which it described "a young, robust, innovative and growing" industry with "companies of all sizes investing in these smaller, safer, and more cost-efficient nuclear reactors." But in order for this industry to thrive, "policymakers should reject the temptation to offer the same sort of subsidies and government programs" as it is doing for large reactors, it said. DOE is preparing to launch a program to pay for part of the costs of commercializing two SMR designs. The program is awaiting budget approval from Congress, but it has received bipartisan support at committee levels in both the House and the Senate and is popular among industry supporters. DOE officials have said only light water reactor designs, the type operating in the US, would be eligible to apply. Government subsidies like the DOE's cost-sharing program would be "detrimental to SMRs," the Heritage report said, because "the federal government picks winners and losers through programs where bureaucrats and well-connected lobbyists decide which technologies are permitted." Instead of offering subsidies, the report recommended that the government focus on reforming NRC's licensing process, which the report said is "ill-prepared ? for new reactor technologies." "The NRC is built to regulate large light water reactors. It simply does not have the regulatory capability and resources to efficiently regulate other technologies," the paper said. NRC spokesman Scott Burnell has said the NRC is focusing on reviewing LWR designs and the Next Generation Nuclear Plant, a high-temperature gas-cooled reactor project mandated by Congress. For any other applications, "we are budgeted for limited non-resource intensive activities," which would take "only a few hours of staff time on a non-routine, infrequent basis," Burnell said in a February 1 e-mail. The result of such limits at NRC "is that enthusiasm for building non-light-water SMRs is generally squashed at the NRC as potential customers realize that there is little chance that the NRC will permit the project within a time frame that would promote near-term investment," the Heritage report said. It suggested that Congress provide NRC funding "to develop additional broad expertise for liquid-metal cooled, fast reactors and high-temperature, gas-cooled reactors." The report also urged the SMR industry to resist government loan guarantees, an approach it said has not helped accelerate nuclear construction. A smaller, less expensive modular reactor "would be very attractive to private investors even without government intervention," it said. But the Breakthrough Institute's **Nordhaus said the idea to have the industry reject government subsidies is "ridiculous." "The entire history of** the **commercial nuclear power** Industry **is a history of state support for the development** of those technologies **and** the **deployment** of those technologies," he said.

### States

#### Perm do both

#### Fifty state fiat is bad- inf regressive and not a real decisionmaking model

#### CP Links to politics- congressional action necessary in territories

Justia US Law, No Date (“Territories: Powers of Congress Over”, http://law.justia.com/constitution/us/article-4/27-congress-power-over-territories.html)

In the territories, Congress has the entire dominion and sovereignty, national and local, and has full legislative power over all subjects upon which a state legislature might act.316 It may legislate directly with respect to the local affairs of a territory or it may transfer that function to a legislature elected by the citizens thereof,317 which will then be invested with all legislative power except as limited by the Constitution of the United States and acts of Congress.318 In 1886, Congress prohibited the enactment by territorial legislatures of local or special laws on enumerated subjects.319 The constitutional guarantees of private rights are applicable in territories which have been made a part of the United States by congressional action320 but not in unincorporated territories.321 Congress may establish, or may authorize the territorial legislature to create, legislative courts whose jurisdiction is derived from statutes enacted pursuant to this section other than from article III.322 Such courts may exercise admiralty jurisdiction despite the fact that such jurisdiction may be exercised in the States only by constitutional courts.323

#### A federal commitment is key – congressional oversight removes regulatory delays and is key to an effective global market

Fertel, 05 - Senior Vice President And Chief Nuclear Officer Nuclear Energy Institute (Marvin, CQ Congressional Testimony, “NUCLEAR POWER'S PLACE IN A NATIONAL ENERGY POLICY,” 4/28, lexis)

Industry and government will be prepared to meet the demand for new emission-free baseload nuclear plants in the 2010 to 2020 time frame only through a sustained focus on the necessary programs and policies between now and then. As it has in the past, strong Congressional oversight will be necessary to ensure effective and efficient implementation of the **federal** government's nuclear energy programs, and to maintain America's leadership in nuclear technology development and its influence over important diplomatic initiatives like nonproliferation. Such efforts have provided a dramatic contribution to global security, as evidenced by the U.S.-Russian nonproliferation agreement to recycle weapons-grade material from Russia for use in American reactors. Currently, more than 50 percent of U.S. nuclear power plant fuel depends on converted Russian warhead material. Nowhere is continued congressional oversight more important than with DOE's program to manage the used nuclear fuel from our nuclear power plants. Continued progress toward a **federal** used nuclear fuel repository is necessary to support nuclear energy's vital role in a comprehensive national energy policy and to support the remediation of DOE defense sites. Since enactment of the 1982 Nuclear Waste Policy Act, DOE's **federal** repository program has repeatedly overcome challenges, and challenges remain before the Yucca Mountain facility can begin operation. But as we address these issues, it is important to keep the overall progress of the program in context. There is international scientific consensus that a deep geologic repository is the best solution for long-term disposition of used military and commercial nuclear power plant fuel and high-level radioactive byproducts. The Bush administration and Congress, with bipartisan support, affirmed the suitability of Yucca Mountain for a repository in 2002. Over the past three years, the Energy Department and its contractors have made considerable progress providing yet greater confirmation that this is the correct course of action and that Yucca Mountain is an appropriate site for a national repository. --During the past year, **federal** courts have rejected significant legal challenges by the state of Nevada and others to the Nuclear Waste Policy Act and the 2002 Yucca Mountain site suitability determination. These challenges questioned the constitutionality of the Yucca Mountain Development Act and DOE's repository system, which incorporates both natural and engineered barriers to contain radioactive material safely. In the coming year, Congress will play an essential role in keeping this program on schedule, by taking the steps necessary to provide increased funding for the project in fiscal 2006 and in future years. Meeting DOE's schedule for initial repository operation requires certainty in funding for the program. This is particularly critical in view of projected annual expenditures that will exceed $1 billion beginning in fiscal 2007. Meeting these budget requirements calls for a change in how Congress provides funds to the project from monies collected for the Nuclear Waste Fund. The history of Yucca Mountain funding is evidence that the current funding approach must be modified. Consumer fees (including interest) committed to the Nuclear Waste Fund since its f6rmation in 1983 total more than $24 billion. Consumers are projected to pay between $750 million to $800 million to the fund each year, based on electricity generated at the nation's 103 reactors. This is more than $2 million per day. Although about $8 billion has been used for the program, the balance in the fund is nearly $17 billion. In each of the past several years, there has been a gap between the annual fees paid by consumers of electricity from nuclear power plants and disbursements from the fund for use by DOE at Yucca Mountain. Since the fund was first established, billions of dollars paid by consumers of electricity from nuclear power plants to the Nuclear Waste Fund-intended solely for the **federal** government's used fuel program-in effect have been used to decrease budget deficits or increase surpluses. The industry believes that Congress should change the funding mechanism for Yucca Mountain so that payments to the Nuclear Waste Fund can be used only for the project and be excluded from traditional congressional budget caps. Although the program should remain subject to congressional oversight, Yucca Mountain appropriations should not compete each year for funding with unrelated programs when Congress directed a dedicated funding stream for the project. The industry also believes that it is appropriate and necessary to consider an alternative perspective on the Yucca Mountain project. This alternative would include an extended period for monitoring operation of the repository for up to 300 years after spent fuel is first placed underground. The industry believes that this approach would provide ongoing assurance and greater confidence that the repository is performing as designed, that public safety is assured, and that the environment is protected. It would also permit DOE to apply evolving innovative technologies at the repository. Through this approach, a scientific monitoring program would identify additional scientific information that can be used in repository performance models. The project then could update the models, and make modifications in design and operations as appropriate. Congressional committees like this one can help ensure that DOE does not lose sight of its responsibility for used nuclear fuel management and disposal, as stated by Congress in the Nuclear Waste Policy Act of 1982. The industry fully supports the fundamental need for a repository so that used nuclear fuel and the byproducts of the nation's nuclear weapons program are securely managed in an underground, specially designed facility. World-class science has demonstrated that Yucca Mountain is the best site for that facility. A public works project of this magnitude will inevitably face challenges. Yet, none is insurmountable. DOE and its contractors have made significant progress on the project and will continue to do so as the project enters the licensing phase. Congressional oversight also can play a key role in maintaining and encouraging the stability of the NRC's regulatory process. Such stability is essential for our 103 operating nuclear plants and equally critical in licensing new nuclear power plants. Congress played a key role several years ago in encouraging the NRC to move toward a new oversight process for the nation's nuclear plants, based on quantitative performance indicators and safety significance. Today's reactor oversight process is designed to focus industry and NRC resources on equipment, components and operational issues that have the greatest importance to, and impact on, safety. The NRC and the industry have worked hard to identify and implement realistic security requirements at nuclear power plants. In the three-and-a-half years since 9/11, the NRC has issued a series of requirements to increase security and enhance training for security programs. The industry complied-fully and rapidly. In the days and months following Sept. 11, quick action was required. Orders that implemented needed changes quickly were necessary. Now, we should return to the orderly process of regulating through regulations. The industry has spent more than $1 billion enhancing security since September 2001. We've identified and fixed vulnerabilities. Today, the industry is at the practical limit of what private industry can do to secure our facilities against the terrorist threat. NRC Chairman Nils Diaz and other commissioners have said that the industry has achieved just about everything that can be reasonably achieved by a civilian force. The industry now needs a transition period to stabilize the new security requirements. We need time to incorporate these dramatic changes into our operations and emergency planning programs and to train our employees to the high standards of our industry-and to the appropriately high expectations of the NRC. Both industry and the NRC need congressional oversight to support and encourage this kind of stability. CONCLUSION Electricity generated by America's nuclear power plants over the past half-century has played a key part in our nation's growth and prosperity. Nuclear power produces over 20 percent of the electricity used in the United States today without producing air pollution. As our energy demands continue to grow in years to come, nuclear power should play an even greater role in meeting our energy and environmental needs. The nuclear energy industry is operating its reactors safely and efficiently. The industry is striving to produce more electricity from existing plants. The industry is also developing more efficient, next-generation reactors and exploring ways to build them more cost-effectively. The public sector, including the oversight committees of the U.S. Congress, can help maintain the conditions that ensure Americans will continue to reap the benefits of our operating plants, and create the conditions that will spur investment in America's energy infrastructure, including new nuclear power plants. One important step is passage of comprehensive energy legislation that recognizes nuclear energy's contributions to meeting our growing energy demands, ensuring our nation's energy security and protecting our environment. Equally important, however, is the need to ensure effective and efficient implementation of existing laws, like the Nuclear Waste Policy Act, and to provide **federal** agencies with the resources and oversight necessary to discharge their statutory responsibilities in the most efficient way possible. The commercial **nuclear power** sector was born in the United States, and nations around the world continue to look to this nation for **leadership** in this technology and in the issues associated with **nuclear power.** Our ability to influence critical international policies in areas like nuclear nonproliferation, for example, depends on our ability to maintain a **leadership** role in prudent deployment, use and regulation of nuclear energy technologies here at home, in the United States, and on our ability to manage the technological and policy challenges-like waste management-that arise with all advanced technologies.

#### Conditionality bad – disincentivizes 2AC strategy because DA’s to CPs take too long and they can just kick it -

#### NATIONAL POLICY is Key to credibility and investment. States inconsistency makes broad adoption impossible. Star this card—the only way they can beat it is by abusing fiat.

Sovacool 09 [Benjamin, Energy Governance Program, Centre on Asia and Globalisation, Lee Kuan Yew School of Public Policy, National University of Singapore, Singapore. Also, knocked Herndon out of the NDT his junior year. On vagueness. Siiiiiiiick. “Rejecting renewables: The socio-technical impediments to renewable electricity in the United States” Energy Policy 37 (2009) 4500–4513]

Consequently, the variability of policy relating to renewable energy serves as a serious impediment. Entrepreneurs seeking investment from individuals and institutions often require consistent conditions upon which to make decisions. Forecasts of profitability usually require data concerning tax credits, depreciation schedules, cash flows, and the like, well into the future. When policymakers frequently change the factors that go into these financial calculations, they insert an extra level of uncertainty into the decision-making process. One interview respondent stated that “an effort to promote renewables has to be sustained, orderly, substantial, predictable, credible, and ramped.” In the United States, formal policy has tended to vary for clean technologies on each of those criteria at the same time it has remained consistent for conventional generators.

Individual states, on the other hand, have taken the lead promoting renewable power systems. Ever since Iowa and Minnesota mandated that utilities purchase renewable energy in 1985 and 1994 (respectively), no fewer than 28 states and the District of Columbia have implemented some form of mandatory standard (often called a “renewable portfolio standard”) forcing power providers to use renewable energy resources. Collectively these states have launched hundreds of millions of dollars in renewable energy projects, the most aggressive states being California and Colorado (20 percent by 2010), New York (24 percent by 2013), and Nevada (20 percent by 2015).

Despite the immense progress individual states have made in promoting renewable power, however, state contributions remain constrained by the design and inconsistency of their differing statutes. Contrary to enabling a well-lubricated national renewable energy market, inconsistencies between states over what counts as renewable energy, when it has to come online, how large it has to be, where it must be delivered, and how it may be traded clog the renewable energy market like coffee grounds in a sink. Implementing agencies and stakeholders must grapple with inconsistent state goals, and investors must interpret competing and often arbitrary statutes.

To pick just a few prominent examples, Wisconsin set its target at 2.2 percent by 2011, while Rhode Island chose 16 percent by 2020. In Maine, fuel cells and high efficiency cogeneration units count as “renewables,” while the standard in Pennsylvania includes coal gasification and fossil-fueled distributed generation technologies. Iowa and Texas initially set their purchase requirements based on installed capacity, whereas other states set them relative to electricity sales. Minnesota has voluntary standards with no penalties, whereas Massachusetts, Connecticut, Rhode Island, and Pennsylvania all levy different non-compliance fees. The result is a renewable energy market that deters investment, complicates compliance, discourages interstate cooperation, and encourages tedious and expensive litigation (Sovacool and Cooper, 2007).

### Oil

#### All their impacts are inevitable—oil prices will CRASH by 2020

LeVine 3-28-13 (Steve, author of the Oil and the Glory, "The next decade could be disastrous for OPEC and Big Oil" qz.com/68265/the-next-decade-could-be-disastrous-for-opec-and-big-oil/

Ed Morse, Citigroup’s top energy economist, has taken a fresh swipe at companies and countries that rely on the global petroleum edifice. With a typically vivid title—“The End is Nigh”—Morse argues in a new report that permanent changes in the ways we produce and consume energy are hollowing out oil demand, with head-spinning ramifications. The nub of the March 26 report: If the market transformation resembles that which occurred after the 1979 Iranian Revolution (which Morse regards as a possibility), global oil demand would plummet by 18%, to around 74 million barrels a day from the current 90 million. Such a plunge would trigger political and economic havoc in petroleum export-reliant Russia and OPEC. It would shake out the oil industry. And it would happen regardless of what steps the major players took. Here’s how it could play out. Morse forecasts that weakening demand will make Brent oil prices drop to $80-$90 a barrel by 2020, from today’s $109 a barrel. Many of the world’s oil export-reliant countries need the higher prices to balance their state budget—Russia requires $117-a-barrel oil, for instance, and Oman requires $109 a barrel to break even. So petroleum producers would shut in fields in an attempt to arrest a free-fall in prices. But even if they propped up prices, they’d be selling fewer barrels. So their absolute income would be likely lower.The result of this for the countries would be intensified Arab Spring-style political volatility, as governments cut back on social spending and other sweeteners to the population. As for industry, some smaller oil companies currently living off the fat of the land would vanish, and Big Oil at best would seriously shrink. Countries like gas-rich Qatar would be winners; Saudi Arabia, reliant on oil, would be in trouble. What will cause this falling demand for oil? The trends Morse and his team are tracking couple a surge in global energy efficiency with a swing away from oil in transportation and electricity production. The biggest instrument of change is plentiful and (in the US) cheap natural gas, to which whole swathes of the global economy could turn. In just one sector—road transportation—Morse sees a big hit to the 13 million barrels a day in diesel burned by heavy trucks around the world. He forecasts that by 2020, for instance, 30% of US cargo trucks and 50% of trash trucks will be fueled by compressed natural gas, not oil. In another—the use of oil to produce electricity in the Middle East—Morse forecasts that natural gas could displace 2 million barrels a day of demand by 2020.

#### No dependency –

#### flexible fuels

McFarlane ’12 – served as President Reagan’s national security adviser and is co-founder of the U.S. Energy Security Council (Robert, “MCFARLANE: Flexible fuel to end foreign oil dependence”, 5/30, <http://www.washingtontimes.com/news/2012/may/30/flexible-fuel-to-end-foreign-oil-dependence/>, CMR)

It doesn’t have to be this way. But the only way we will overcome this challenge will be to introduce competition at the pump. Fortunately, there are alternative fuels in a family of alcohol products. One hundred years ago, Henry Ford thought we ought to burn alcohol in his cars. It burns cleaner and has a higher octane (race-car drivers love methanol) and would enable us to stop breathing in carcinogenic benzene, xylene and toluene (additives currently blended into gasoline to increase octane). Methanol, which a recent Massachusetts Institute of Technology study concluded is the most desirable alternative to gasoline, can be made from natural gas - think shale gas - which is being found in great abundance both here and throughout the world. The best news is that methanol producers think they will be able to deliver at the pump the energy equivalent to a gallon of gasoline for about $3 (including processing, distribution, infrastructure and taxes) - all without federal subsidies of any kind.¶ Parallel advances have been made in the chemical industry, where the time isn’t far off when a pound of sugar will replace a barrel of oil and enable the growth of a huge biochemical industry that doesn’t rely on any food feedstock to produce those fibers and plastics mentioned earlier. To reach that day, the industry may need a little help - in the way of investment tax credits or loan guarantees - to complete the necessary research and development. But that support will be short-lived and could be offset by no longer needing to give $40 billion annually in subsidies to the oil industry. It would be the best bargain we’d ever make.¶ America, we can do this. Following a week of remembrance when we honored those who have given their lives to preserve the freedoms we enjoy at the ballot box and in the marketplace, what better time to recommit ourselves to lessening our dependence on unstable parts of the world where our sons and daughters have died fighting. A good starting point would be investment into ramping up production of methanol and other alternatives to gasoline. This will add immeasurably to our national security, our economic security, our health and the environment. We simply cannot go on as we have. To do so is to heap yet another family of burdens on the backs of generations to come.

#### new production lines

Krauss 8/19/12 (Clifford, “U.S. reliance on Saudi oil is growing again”, <http://www.sltrib.com/sltrib/money/54718663-79/oil-saudi-iran-dependence.html.csp>, CMR)

The United States imported a daily average of more than 1.45 million barrels of Saudi crude over the first five months of this year, compared with a daily average of roughly 1.15 million barrels over the same period last year, according to Energy Department estimates. Many oil experts say that the increasing dependency is probably going to last only a couple of years, or until more Canadian and Gulf of Mexico production comes on line.

#### No risk of war or relations collapse – practical necessity ensures no escalation

Sestanovich '8

Professor of International Diplomacy at Columbia and George F Keenan Senior Fellow for Russian studies @ CFR [Stephen, Kathryn and Shelby Cullom Davis Professor of International Diplomacy at Columbia University and George F. Kennan Senior Fellow for Russian and Eurasian Studies at the Council on Foreign Relations, He was Ambassador-at-Large for the former Soviet Union from 1997 to 2001, November/December,“what has Moscow done?”, foreign affairs, http://www.scrapsofmoscow.org/2008/11/time-to-repair-relationship.html]

Against this backdrop, Russia's invasion of a small neighbor might have seemed to be final confirmation of the view that Russia has become, in the words of the British economist Robert Skidelsky, "the world's foremost revisionist power." And yet, for all the recent references to the Sudetenland and the crushing of the Prague Spring, Western governments have made clear that such parallels will not guide their response. Government officials and pundits alike have been coupling their denunciations of Moscow with assurances that they want to work with it in advancing common interests, whether on nuclear proliferation, terrorism, energy security, drug trafficking, or climate change. The more these issues are invoked, the less one should expect U.S. policy toward Russia to change.Harry Truman, it might be recalled, did not usually speak of his determination to work with Joseph Stalin. For two decades, the idea that the United States needs Russia for practical reasons has led Washington, even in moments of shock and confusion over Russia's actions, to want to keep relations with Russia from becoming any worse than necessary. Although U.S. policymakers have considered Moscow a high-maintenance partner with whom getting to yes is extremely frustrating and sometimes almost hopeless, they have never been ready to give up on the effort. Even Russia's war with Georgia has not changed this outlook, and for the foreseeable future probably nothing will.

### Politics

#### Won’t pass---border security

Byron York 3-27, Chief Political Correspondent - The Washington Examiner, “Border security in exchange for immigration reform? Napolitano says no deal.” 3-27-13, http://washingtonexaminer.com/border-security-in-exchange-for-immigration-reform-napolitano-says-no-deal./article/2525505

Republicans working to craft a comprehensive immigration reform bill say there is one rock-bottom requirement for any deal: The border must be secure, and proven to be secure, before any path to citizenship is created for the millions of immigrants currently in the country illegally. That is the one non-negotiable GOP demand. And on Tuesday, Homeland Security Secretary Janet Napolitano flatly rejected it.¶ “Relying on one thing as a so-called trigger is not the way to go,” Napolitano told a breakfast meeting of journalists. Asked about her department’s recent revelation that it will not produce a long-promised method of measuring border security, known as the Border Condition Index, Napolitano said, “We’re confident that the border is as secure as it’s ever been. But there’s no one number that captures that.” Without a way to measure border security, many Republican reform advocates say, there’s no way to go forward with a reform agreement.¶ Napolitano’s comments were one more bit of evidence, if Republicans needed any, that the Obama administration does not intend to make enhanced border security a precondition of immigration reform. “Every position and action the administration takes is consistent with the idea that they have no desire to accomplish immigration security,” said one GOP Senate aide who spoke on condition of anonymity.¶ “One of the challenges in crafting any reform is that the American people do not have confidence in this administration’s willingness to enforce current immigration law,” said Alex Conant, spokesman for Marco Rubio, the Republican senator and Gang of Eight member who has staked considerable political capital on the negotiations. “Senator Rubio and several members of the immigration working group share these concerns, and it’s reflected in the solution they are trying to craft. Our legislation will include real security triggers to make sure out borders are secured.”¶ Added Conant: “Senator Rubio will not support any legislation that does not include real security triggers to make sure our borders are secured.”¶ As for Napolitano, another aide said, “I wonder if she’s freelancing, or carrying a message from the White House.” At Tuesday’s White House briefing, spokesman Jay Carney was asked that very question, and while he spoke at length without saying anything definitive, Carney appeared to suggest that President Obama agrees with Napolitano. From the transcript:¶ QUESTION: Secretary Napolitano said today that triggers are not necessary before comprehensive immigration reform. So what does the White House do to convince those on the other side? Since there are no reliable metrics about border security, what will you do to convince them that the border is secure enough for immigration and a path to citizenship to begin?¶ MR. CARNEY: Well, I think the question is excellent, and I would note that what Secretary Napolitano has said — Secretary Napolitano has said that the Department of Homeland Security measures progress using a number of metrics to make sure we are putting our resources where they will have the most impact. And I think that while there are different ways to look at this issue, the fact is, by a host of measures, there has been great improvement in our border security.¶ Certainly the facts are there when it comes to the resources that have been applied to border security — the doubling of border security agents, as well as the other metrics that you will often hear Secretary Napolitano or others discuss. So we look at a variety of measures.¶ And I think you can look at what this President has committed to and the record on border security since he came into office to evaluate his assertion that border security is a vital element of comprehensive immigration reform. That has been his position, and it continues to be. And I would note — and this is something that has been acknowledged by important members of the Senate, Republican members — the progress that has been made on this very important issue, border security. Much of — the last time comprehensive immigration reform was essentially abandoned, some of the issues — the principal reason for that was because of concerns about border security. And many of the metrics that were put forward then have been met — the goals and the targets that were said to have to be achieved before we could move forward have been met.¶ But this is an ongoing issue. This is an ongoing concern, and it’s an ongoing project of this administration. And it will certainly be an important part of immigration reform.¶ QUESTION: Do you — does the White House oppose commissions or certain triggers before a path to citizenship can begin?¶ MR. CARNEY: What we have said and I’ll say today is that we are not going to judge the bill before it’s been written. And we are working with the senators who are in the Gang of Eight as they make progress, and they’ve made considerable progress, and that is worth noting. Senator Schumer just the other day talked about where they are in that process and the progress that they’ve been making, and we were heartened by that.¶ But as the President said yesterday, we have to keep pushing. We have to make sure that we follow through on this progress, and that that progress leads to a bill that has bipartisan support and that can be signed by this President. And we’re not there yet. Progress is being made. It’s being made in the Senate, which is where the President hoped it would be made. And we are very much monitoring that process and engaging in that process. But it’s not done yet, and I don’t want to prejudge a bill that hasn’t been written.¶ QUESTION: But if I could just press you on it, it does appear as though that Secretary Napolitano did today prejudge. She said the triggers are not necessary. Does the White House agree with that assessment?¶ MR. CARNEY: I think what she was saying — and the assessment we do agree with — is that there are a variety of metrics by which you can measure, and we do measure, progress on border security. And these are metrics that others use to measure border security, including Democrats and Republicans in the Senate and beyond the Senate, beyond the Congress.¶ So we’re working with Congress on this, with the Senate on this. Progress has been made. Border security is one of the key principles that the President has put forward that has to be part of comprehensive immigration reform. He has demonstrated his seriousness on this issue, as has Secretary Napolitano. But it is something that we’re — it’s not a done project. We have to continue working on it.¶ Cut through all the verbiage, and Carney seemed to say precisely what Napolitano said: If Republicans demand that tougher border enforcement be a precondition for comprehensive immigration reform, they can forget about making a deal, now or ever.

#### --Guest worker disputes, PC can’t overcome

Nakamura 3/28 (David, “Guest-worker program dispute may delay immigration bill”, <http://www.azcentral.com/news/politics/free/20130328immigration-reform-guest-worker-program-dispute-may-delay-bill.html>, CMR)

A bipartisan deal on immigration is at risk of stalling because of a worsening dispute over a new guest-worker program, exposing fault lines between crucial interest groups and threatening to delay the unveiling of a Senate bill early next month.¶ The impasse has prompted a bitter round of name-calling between labor and business groups, both of whom accuse the other of imperiling comprehensive immigration reform.¶ As the standoff has deteriorated, the Obama administration has remained on the sidelines and declined to intervene — a calculated decision that the president’s influence would risk alienating Republican senators crucial to the process.¶ The dispute over a program for foreign workers has emerged as perhaps the most serious obstacle to a final deal from a bipartisan group of eight senators, who are attempting to fashion model legislation for broad immigration reform. The same issue helped derail the last serious attempt at reform in 2007 with help from Obama, then a U.S. senator from Illinois.¶ The current talks center on rules governing the “future flow” of migrants who come to the United States for low-paying, menial jobs. Republicans, citing business interests, want to give temporary work visas to up to 400,000 foreign workers a year, mostly at minimum wages. But unions and many Democrats, fearing the impact on American workers, want fewer workers and higher pay under the program.¶ Senators involved in the immigration talks insist they remain on schedule to complete a bill, including a path to citizenship for 11 million illegal immigrants, in early April. Obama also expressed confidence this week that the guest-workers disagreement could be solved.¶ “I don’t agree that it’s threatening to doom the legislation,” Obama said in an interview Wednesday with Telemundo, the Spanish-language TV network. “Labor and businesses may not always agree exactly on how to do this, but this is a resolvable issue.”¶ But behind the scenes, negotiations over the guest-worker program — and the White House’s refusal to take a position — have soured relations between the AFL-CIO and U.S. Chamber of Commerce, which only a month ago joined hands to publicly proclaim agreement on an overall plan.¶ “Unions say they want a guest-worker program, but their behavior is to the contrary,” said Geoff Burr, vice president for federal affairs for the Associated Builders and Contractors. “They are insisting on a program that no employer would consider using.”¶ Union officials believe they have leverage because they have publicly committed to supporting Obama’s push for a path to citizenship, a key issue for Latino voters who overwhelmingly supported the president’s reelection last year.¶ “This is not what Barack Obama campaigned on,” AFL-CIO spokesman Jeff Hauser said. “I don’t understand why people believe business has a seat at the main table after fighting for anti-citizenship candidates in 2012.”¶ As a senator eyeing union support for a White House bid, Obama voted in favor of an amendment to an immigration bill in 2007 that would have eliminated a new guest-worker program after five years. The amendment, which passed by one vote, has since been cited as a key reason that immigration legislation failed to advance that year.¶ Obama made no mention of a guest-worker program in the immigration principles he laid out in a speech in Las Vegas two months ago. The omission was notable considering the bipartisan Senate group had included the idea in its own principles that same week.¶ Instead, the White House has deferred to the Senate group — which includes four Democrats and four Republicans — to work out an agreement between the Chamber of Commerce and AFL-CIO.¶ “If it’s included in line with the other principles that the president has rolled out in terms of what should be included in comprehensive immigration reform, that’s certainly something that we could support,” White House spokesman Josh Earnest said Wednesday of a guest-worker program. “But we’re going to reserve judgment on what that looks like until it’s actually produced.”¶ Administration officials say privately that the Senate group asked the White House to give the lawmakers “space” to take the lead in finding common ground between labor and business. Obama also is mindful of causing a political firestorm if he is seen trying to big-foot the efforts of the senators, potentially angering the Republican members, officials said.¶ But Obama has also vowed to step in with his own legislative proposals if the Senate is unable to come to an agreement on a bill. The White House announced this week that the president will travel to Mexico and Costa Rica in early May to highlight cultural and economic ties.¶ One Republican Senate aide involved in the talks said the White House’s absence from negotiations has been helped ensure that the negotiations do not become “overly politicized.”¶ But, the GOP aide added: “Everyone understands this is a critical piece for future flow. It’s central. There’s been a good faith effort to get to a result, but the White House has not been involved. Eventually, the White House will have to make a choice.”¶ The senators involved maintain that the negotiations continue to move forward. Four members of the working group inspected border-control measures in Arizona on Wednesday, and Sen. Chuck Schumer, D-N.Y., said after that the group is “90 percent” complete on the legislation.¶ “There are a few little problems to work on,” he said. “We’ve been on the phone all day working with” the other members.¶ The guest-worker program is not the only contentious area of the Senate legislation. The bill is likely to include a large increase in visas for high-tech workers and the elimination of some categories of family visas, two areas that have provoked strong push back from advocates who fear it could make it harder for families to be reunited while favoring employment-based migration.¶ The guest-worker dispute broke into view last week when Chamber of Commerce officials went public with their concerns over the process, leading to angry responses from AFL-CIO officials.¶ The chamber has called for 400,000 new visas for guest workers, along with the ability for the workers to switch jobs once they are in the United States. Union officials countered with an offer of 10,000 visas and say the foreign workers should be allowed to pursue citizenship once they have entered the country.¶ The senators have reportedly agreed to cap the program at 200,000 visas per year, starting at a much lower figure and moving up as the economy improves.¶ The biggest sticking point, however, has been wages. The chamber wants to pay the foreigners the equivalent of minimum wages of American workers, and the unions are holding out for a higher pay scale based on median wages of each industry.¶ Business leaders contend that the AFL-CIO — and, by association, the White House — are not negotiating in good faith.

#### --Obama’s staying out of it – even though he calls it a "top priority"

Fox News, 3-28-2013 <http://latino.foxnews.com/latino/politics/2013/03/28/obama-immigration-reform-expected-by-end-summer/-http://latino.foxnews.com/latino/politics/2013/03/28/obama-immigration-reform-expected-by-end-summer/>, CMR

President Barack Obama pressed for swift action on a sweeping immigration bill Wednesday, saying last-minute obstacles are “resolvable” and predicting Congress could pass historic legislation by the end of the summer.¶ In back-to-back interviews with Spanish-language television networks, Obama repeatedly voiced confidence in a bipartisan Senate group that appears to be on the cusp of unveiling a draft bill. And he said that while he is still prepared to step in with his own bill if talks break down, he doesn’t expect that step to be necessary.¶ “If we have a bill introduced at the beginning of next month as these senators indicate it will be, then I’m confident that we can get it done certainly before the end of the summer,” Obama told Telemundo.¶ While overhauling the nation’s patchwork immigration laws is a top second term priority for the president, he has ceded the negotiations almost entirely to Congress. He and his advisers have calculated that a bill crafted by Capitol Hill stands a better chance of winning Republican support than one overtly influenced by the president.¶ In his interviews Wednesday, Obama tried to stay out of the prickly policy issues that remain unfinished in the Senate talks, though he said a split between business and labor on wages for new low-skilled workers was unlikely to “doom” the legislation.¶ “This is a resolvable issue,” he said.¶ The president also spoke Wednesday with Univision. His interviews followed a citizenship ceremony conducted Monday at the White House where he pressed Congress to “finish the job” on immigration, an issue that has vexed Washington for years.¶ The president made little progress in overhauling the nation’s fractured immigration laws in his first term, but he redoubled his efforts after winning re-election. The November contest also spurred some Republicans to drop their opposition to immigration reform, given that Hispanics overwhelmingly backed Obama.¶ In an effort to keep Republicans at the negotiation table, Obama has stayed relatively quiet on immigration over the last month. He rolled out his immigration principles during a January rally in Las Vegas and made an impassioned call for overhauling the nation’s laws during his early February State of the Union address, then purposely handed off the effort to lawmakers.

#### Executive actions solves

Kumar 3/19 (Anita, “Obama turning to executive power to get what he wants”, 2013, <http://www.mcclatchydc.com/2013/03/19/186309/obama-turning-to-executive-power.html#storylink=cpy>, CMR)

WASHINGTON — President Barack Obama came into office four years ago skeptical of pushing the power of the White House to the limit, especially if it appeared to be circumventing Congress.¶ Now, as he launches his second term, Obama has grown more comfortable wielding power to try to move his own agenda forward, particularly when a deeply fractured, often-hostile Congress gets in his way.¶ He’s done it with a package of tools, some of which date to George Washington and some invented in the modern era of an increasingly powerful presidency. And he’s done it with a frequency that belies his original campaign criticisms of predecessor George W. Bush, invites criticisms that he’s bypassing the checks and balances of Congress and the courts, and whets the appetite of liberal activists who want him to do even more to advance their goals.¶ While his decision to send drones to kill U.S. citizens suspected of terrorism has garnered a torrent of criticism, his use of executive orders and other powers at home is deeper and wider.¶ He delayed the deportation of young illegal immigrants when Congress wouldn’t agree. He ordered the Centers for Disease Control and Prevention to research gun violence, which Congress halted nearly 15 years ago. He told the Justice Department to stop defending the Defense of Marriage Act, deciding that the 1996 law defining marriage as between a man and a woman was unconstitutional. He’s vowed to act on his own if Congress didn’t pass policies to prepare for climate change.¶ Arguably more than any other president in modern history, he’s using executive actions, primarily orders, to bypass or pressure a Congress where the opposition Republicans can block any proposal.¶ “It’s gridlocked and dysfunctional. The place is a mess,” said Rena Steinzor, a law professor at the University of Maryland. “I think (executive action) is an inevitable tool given what’s happened.”¶ Now that Obama has showed a willingness to use those tactics, advocacy groups, supporters and even members of Congress are lobbying him to do so more and more.¶ The Center for Progressive Reform, a liberal advocacy group composed of law professors, including Steinzor, has pressed Obama to sign seven executive orders on health, safety and the environment during his second term.¶ Seventy environmental groups wrote a letter urging the president to restrict emissions at existing power plants.¶ Sen. Barbara Mikulski, D-Md., the chairwoman of the Appropriations Committee, sent a letter to the White House asking Obama to ban federal contractors from retaliating against employees who share salary information.¶ Gay rights organizations recently demonstrated in front of the White House to encourage the president to sign an executive order to bar discrimination based on sexual orientation or gender identity by companies that have federal contracts, eager for Obama to act after nearly two decades of failed attempts to get Congress to pass a similar bill.¶ “It’s ridiculous that we’re having to push this hard for the president to simply pick up a pen,” said Heather Cronk, the managing director of the gay rights group GetEQUAL. “It’s reprehensible that, after signing orders on gun control, cybersecurity and all manner of other topics, the president is still laboring over this decision.”¶ The White House didn’t respond to repeated requests for comment.¶ In January, Obama said he continued to believe that legislation was “sturdier and more stable” than executive actions, but that sometimes they were necessary, such as his January directive for the federal government to research gun violence.¶ “There are certain issues where a judicious use of executive power can move the argument forward or solve problems that are of immediate-enough import that we can’t afford not to do it,” the former constitutional professor told The New Republic magazine.

#### Disads illogical – the judge is the federal government and can do the plan while passing immigration reform – no reason they’d backlash against themselves

#### No spillover

Berger 3-4, Judson 2013, “Recurring budget crises could put squeeze on Obama's second-term priorities,” Fox News, <http://www.foxnews.com/politics/2013/03/04/recurring-budget-crises-could-put-squeeze-on-obama-second-term-priorities/#ixzz2OknXmt3G>, CMR

Rep. Luis Gutierrez, D-Ill., a vocal advocate for immigration reform, voiced confidence Monday that the administration and Congress could handle the busy agenda. ¶ "The spirit of bipartisan cooperation that is keeping the immigration issue moving forward has not been poisoned by the sequester and budget stalemate, so far," he said in a statement. "The two sets of issues seem to exist in parallel universes where I can disagree with my Republican colleagues strenuously on budget matters, but still work with them effectively to eventually reach an immigration compromise. ... I remain extremely optimistic that immigration reform is going to happen this year." ¶ Immigration reform efforts are still marching along despite the budget drama. Obama met last week on the issue with Sens. John McCain, R-Ariz., and Lindsey Graham, R-S.C., who both are part of a bipartisan group crafting legislation.

#### SMRs popular

Nelson and Northey 12 Gabriel and Northey, energy and environment reports for Greenwire, “DOE funding for small reactors languishes as parties clash on debt,” <http://www.eenews.net/public/Greenwire/2012/09/24/3>

It's not just wind and solar projects that are waiting for federal help as Congress duels over the importance of putting taxpayer dollars on the line for cutting-edge energy projects. Some of the nation's largest nuclear power companies are anxious to hear whether they will get a share of a $452 million pot from the Department of Energy for a new breed of reactors that the industry has labeled as a way to lessen the safety risks and construction costs of new nuclear power plants. The grant program for these "small modular reactors," which was announced in January, would mark the official start of a major U.S. foray into the technology even as rising construction costs -- especially when compared to natural-gas-burning plants -- cause many power companies to shy away from nuclear plants. DOE received four bids before the May 21 deadline from veteran reactor designers Westinghouse Electric Co. and Babcock & Wilcox Co., as well as relative newcomers Holtec International Inc. and NuScale Power LLC. Now the summer has ended with no announcement from DOE, even though the agency said it would name the winners two months ago. As the self-imposed deadline passed, companies started hearing murmurs that a decision could come in September, or perhaps at the end of the year. To observers within the industry, it seems that election-year calculations may have sidelined the contest. "The rumors are a'flying," said Paul Genoa, director of policy development at the Nuclear Energy Institute, in an interview last week. "All we can imagine is that this is now caught up in politics, and the campaign has to decide whether these things are good for them to announce, and how." Small modular reactors do not seem to be lacking in political support. The nuclear lobby has historically courted both Democrats and Republicans and still sees itself as being in a strong position with key appropriators on both sides of the aisle. Likewise, top energy officials in the Obama administration have hailed the promise of the new reactors, and they haven't shown any signs of a change of heart. DOE spokeswoman Jen Stutsman said last week that the department is still reviewing applications, but she did not say when a decision will be made.

#### Nuclear funding has unanimous support

Press Action ’12 (3/12/12 ("US Nuclear Industry Operates as if Fukushima Never Happened") http://www.pressaction.com/news/weblog/full\_article/nuclearsubsidies03122012/-http://www.pressaction.com/news/weblog/full\_article/nuclearsubsidies03122012/

Both Democrats and Republicans have had a long love affair with commercial nuclear power, and the relationship is showing no signs of losing steam. Since the 1950s, members of both parties have enthusiastically lavished electric utility companies with expensive gifts, ranging from subsidies to protection from liability for disasters to loan guarantees, all underwritten by U.S. taxpayers.¶ The political calculus is simple: nuclear power enjoys unanimous support in Washington. Try to name one member of the U.S. Senate or House of Representatives who favors shutting down the nation’s 104 commercial nuclear reactors. Federal agencies, from the Atomic Energy Commission to the Department of Energy to the Nuclear Regulatory, have worked diligently through the years to promote nuclear power. At the state level, support for nuclear power also is extremely strong, although there are some politicians—albeit a tiny number—who have publicly called for the closure of certain nuclear plants.¶ On the one-year anniversary of the start of the nuclear disaster at the Fukushima Dai-ichi nuclear power plant in Japan, one would assume a voice in official Washington would have emerged calling for an end to the nation’s experiment with nuclear power. In Germany, government officials made the decision to phase out nuclear power by 2022 in response to Fukushima. There’s no such sentiment among the ruling elite in the United States. Locating a member of Congress opposed to the continued operation of nuclear power plants is as hard as finding a lawmaker who favors breaking ties with Israel over its mistreatment of Palestinians for the last 60 years. In fact, it’s more than hard, it’s impossible.¶ It’s very rare to find an issue where there is a noteworthy difference between Democrats and Republicans. When there are differences, they tend to be subtle, although party officials and the corporate media will attempt to sensationalize a slight difference to create an impression that the U.S. political system permits honest and real debate.

#### PC *gone* – plan *rebuilds momentum*

Parnes 3/20 (Amie, “Obama honeymoon may be over”, <http://thehill.com/homenews/administration/289179-obama-honeymoon-may-be-over>, CMR)

The second-term honeymoon for President Obama is beginning to look like it is over.¶ Obama, who was riding high after his reelection win in November, has seen his poll numbers take a precipitous fall in recent weeks. ¶ A CNN poll released Tuesday showed Obama’s favorability rating underwater, with 47 percent approving and 50 percent disapproving of Obama’s handling of his job. ¶ Much of the president’s agenda is stuck, with climate change regulations delayed, immigration reform mired in committee negotiations and prospects for a grand bargain budget deal in limbo at best. ¶ On Tuesday, in a decision that underscored Obama’s depleting political capital, the White House watched as Senate Majority Leader Harry Reid (D-Nev.) announced only a watered-down version of Obama’s gun control proposals would be considered on the Senate floor. ¶ Republicans, sensing the sea change, are licking their chops. They point to the lack of movement on Obama’s signature issues, noting the contrast to the ambitious plans outlined in the early weeks of his second term.¶ “The president set very high goals for himself during his State of the Union, but the reality is very little of his agenda is actually moving,” Republican strategist Ron Bonjean said. “He allowed himself to get caught up in the legislative quicksand, [and] the cement is beginning to harden. “¶ History isn’t on Obama’s side. ¶ The last four presidents who won a second term all saw their poll numbers slide by mid-March with the exception of Bill Clinton, whose numbers improved in the four months following his reelection.¶ Clinton may have only been delaying the inevitable. His numbers dropped 5 points in April 1994. Even Ronald Reagan, buoyed by a dominant performance over Walter Mondale in the 1984 election, saw a double-digit erosion by this point in his second term.¶ Obama has yet to complete the first 100 days of his second term. But without a signature achievement since his reelection, he faces a crossroads that could define the remainder of his presidency. ¶ White House aides maintain that the 24-hour news cycle makes comparisons to previous presidents difficult.¶ “I think the nature of our politics now is different than Ronald Reagan’s honeymoon,” one senior administration official said. “The ebb and flow of politics doesn’t follow that model anymore.”¶ But observers say a drop in popularity is typical for second-termers.¶ “There may be some typical second-term honeymoon fade happening,” said Martin Sweet, an assistant visiting professor of political science at Northwestern University. “Honeymoon periods for incumbents are a bit more ephemeral.”¶ But like most other presidents, Sweet added, “Obama’s fate is tied to the economy.”¶ “Continuing economic progress would ultimately strengthen the president but if we are hit with a double-dip recession, then Obama’s numbers will crater,” he said.¶ The White House disputes any notion that Obama has lost any political capital in recent weeks.¶ “The president set out an ambitious agenda and he’s doing big things that are not easy, from immigration to gun control,” the senior administration official said. “Those are policies you can’t rack up easily, and no one here is naive about that.”¶ The White House is aware that the clock is ticking to push its hefty agenda, but the official added, “The clock is not ticking because of president’s political capital. The clock is ticking because there’s a timetable in achieving all of this. [Lawmakers] are not going to sign on because the president’s popular.” ¶ And administration officials believe they still have the leverage.¶ ¶ “There’s a decent amount of momentum behind all of this,” the official said. “It looks like immigration is closer [to passage] than ever before.”¶ Republican strategist Ken Lundberg argued that current budget fights “have cut short the president’s second-term honeymoon.” ¶ He said this could also hurt the president’s party, warning “the lower the president’s approval rating, the bigger the consequence for vulnerable Democrats.”¶ “Voters want solutions, and if they see the president headed down the wrong path, lockstep lawmakers will be punished in 2014,” he said.¶ Democratic strategist Chris Kofinis maintained that as long as he’s president, Obama still has the leverage.¶ “Immigration reform doesn’t get impacted by whether Obama’s poll numbers are 55 or 45,” Kofinis said. “Does it make certain things a little more difficult? Possibly. But while his numbers may have fallen, he’s still more likeable than the Republicans are on their best day.”¶ Kofinis said the real question for Obama is what kind of emphasis he’s going to place on his second term because the public will have less patience than they did during his first.¶ “The challenge in a second term is the American people look at certain things and have a higher tolerance in a second term,” he said. “When they know you’re not running for reelection again, they hold you to a higher standard.” ¶ Bonjean and other Republicans are aware that Obama could potentially bounce back from his latest slip in the polls and regain his footing.¶ “He has the opportunity to take minor legislative victories and blow them up into major accomplishments – meaning if he got something on gun control, he can tout that that was part of his agenda and the work isn’t over. If he were able to strike a grand bargain with Republicans, that’d be a legacy issue.”¶ Still, Bonjean added, “It’s not looking so good right now.”

# 1ar

### War

#### Counterforce targeting checks

Mueller 2009

(John, Woody Hayes Chair of National Security Studies and Professor of Political Science at Ohio State University. “Atomic Obsession: Nuclear Alarmism from Hiroshima to Al-Qaeda” p. 8)

To begin to approach a condition that can credibly justify applying such extreme characterizations as societal annihilation, a full-out attack with hundreds, probably thousands, of thermonuclear bombs would be required. Even in such extreme cases, the area actually devastated by the bombs' blast and thermal pulse effects would be limited: 2,000 I-MT explosions with a destructive radius of 5 miles each would directly demolish less than 5 percent of the territory of the United States, for example. Obviously, if major population centers were targeted, this sort of attack could inflict massive casualties. Back in cold war days, when such devastating events sometimes seemed uncomfortably likely, a number of studies were conducted to estimate the consequences of massive thermonuclear attacks. One of the most prominent of these considered several possibilities. The most likely scenario--one that could be perhaps be considered at least to begin to approach the rational-was a "counterforce" strike in which well over 1,000 thermonuclear weapons would be targeted at America's ballistic missile silos, strategic airfields, and nuclear submarine bases in an effort to destroy the country's strategic ability to retaliate. Since the attack would not directly target population centers, most of the ensuing deaths would be from radioactive fallout, and the study estimates that from 2 to 20 million, depending mostly on wind, weather, and sheltering, would perish during the first month.

### Impact D

#### Hegemony is irrelevant

Fettweis ‘10 – professor of security studies at the Naval War College [Christopher J, “Dangerous Times: The International Politics of Great Power Peace”, page number below, CMR]

First of all, **the hegemonic-stability argument** overstates the role **that the U**nited **S**tates **plays in the system. No country is strong enough to police the world on its own.** The only way there can be stability in the community of great powers is if self-policing occurs, if states have decided that their interests are served by peace. **If no pacific normative shift had occurred among the great powers** that was filtering down through the system, **then no amount of international constabulary work by the United States could maintain stability.** Likewise, **if it is true that such a shift has occurred, then most of what the hegemon spends to bring stability would be wasted.** **The 5 percent of the worlds population that live in the United States simply could not force peace upon an unwilling** 95. At the risk of beating the metaphor to death, **the U**nited **S**tates **may be patrolling a neighborhood that has** already rid itself of crime**. Stability and unipolarity may be** simply coincidental**.** In order **for U.S. hegemony to be the reason for global stability, the rest of the world would have to expect reward for good behavior and fear punishment** for evolution is typically unidirectional. Strategic restraint in such a world would be virtually risk-free^^y [page 176-177]

#### No chance of war from economic decline---best and most recent data

Daniel W. Drezner 12, Professor, The Fletcher School of Law and Diplomacy, Tufts University, October 2012, “The Irony of Global Economic Governance: The System Worked,” http://www.globaleconomicgovernance.org/wp-content/uploads/IR-Colloquium-MT12-Week-5\_The-Irony-of-Global-Economic-Governance.pdf

The final outcome addresses a dog that hasn’t barked: the effect of the Great Recession on cross-border conflict and violence. During the initial stages of the crisis, multiple analysts asserted that the financial crisis would lead states to increase their use of force as a tool for staying in power.37 Whether through greater internal repression, diversionary wars, arms races, or a ratcheting up of great power conflict, there were genuine concerns that the global economic downturn would lead to an increase in conflict. Violence in the Middle East, border disputes in the South China Sea, and even the disruptions of the Occupy movement fuel impressions of surge in global public disorder. The aggregate data suggests otherwise, however. The Institute for Economics and Peace has constructed a “Global Peace Index” annually since 2007. A key conclusion they draw from the 2012 report is that “The average level of peacefulness in 2012 is approximately the same as it was in2007.”38 Interstate violence in particular has declined since the start of the financial crisis – as have military expenditures in most sampled countries. Other studies confirm that the Great Recession has not triggered any increase in violent conflict; the secular decline in violence that started with the end of the Cold War has not been reversed.39 Rogers Brubaker concludes, “the crisis has not to date generated the surge in protectionist nationalism or ethnic exclusion that might have been expected.”40 None of these data suggest that the global economy is operating swimmingly. Growth remains unbalanced and fragile, and has clearly slowed in 2012. Transnational capital flows remain depressed compared to pre-crisis levels, primarily due to a drying up of cross-border interbank lending in Europe. Currency volatility remains an ongoing concern. Compared to the aftermath of other postwar recessions, growth in output, investment, and employment in the developed world have all lagged behind. But the Great Recession is not like other postwar recessions in either scope or kind; expecting a standard “V”-shaped recovery was unreasonable. One financial analyst characterized the post-2008 global economy as in a state of “contained depression.”41 The key word is “contained,” however. Given the severity, reach and depth of the 2008 financial crisis, the proper comparison is with GreatDepression. And by that standard, the outcome variables look impressive. As Carmen Reinhart and Kenneth Rogoff concluded in This Time is Different: “that its macroeconomic outcome has been only the most severe global recession since World War II – and not even worse – must be regarded as fortunate.”42

#### Bioterror risk is low—dispersal problems, tech barriers, risk fo back spread—experts agree

John Mueller, Professor, Political Science, Ohio State University, OVERBLOWN: HOW POLITICIANS AND THE TERRORISM INDUSTRY INFLATE NATIONAL SECURITY THREATS, AND WHY WE BELIEVE THEM, 2009, p. 21-22.

For the most destructive results, biological weapons need to be dispersed in very low-altitude aerosol clouds. Because aerosols do not appreciably settle, pathogens like anthrax (which is not easy to spread or catch and is not contagious) would probably have to be sprayed near nose level. Moreover, 90 percent of the microorganisms are likely to die during the process of aerosolization, and their effectiveness could be reduced still further by sunlight, smog, humidity, and temperature changes. Explosive methods of dispersion may destroy the organisms, and, except for anthrax spores, long-term storage of lethal organisms in bombs or warheads is difficult: even if refrigerated, most of the organisms have a limited lifetime. The effects of such weapons can take days or weeks to have full effect, during which time they can be countered

with medical and civil defense measures. And their impact is very difficult to predict; in combat situations they may spread back onto the attacker. In the judgment of two careful analysts, delivering microbes and toxins over a wide area in the form most suitable for inflicting mass casualties—as an aerosol that can be inhaled—requires a delivery system whose development "would outstrip the technical capabilities of all but the most sophisticated terrorist" Even then effective dispersal could easily be disrupted by unfavorable environmental and meteorological conditions." After assessing, and stressing, the difficulties a nonstate entity would find in obtaining, handling, growing, storing, processing, and dispersing lethal pathogens effectively, biological weapons expert Milton Leitenberg compares his conclusions with glib pronouncements in the press about how biological attacks can be pulled off by anyone with "a little training and a few glass jars," or how it would be "about as difficult as producing beer." He sardonically concludes, "The less the commentator seems to know about biological warfare the easier he seems to think the task is.""

### 1ar – unilat – must reads\*

#### Obama will use executive authority to bypass congressional gridlock – recent halting of deportations proves – that’s Kumar – the DA proves that lobbies and congress would pressure him to act

#### Especially true for their scenario

Lillis 2/16 Mike, “Dems: Obama can act unilaterally on immigration reform”, thehill.com/blogs/regwatch/administration/283583-dems-recognize-that-obama-can-act-unilaterally-on-immigration-reform, (accessed by CMR on February 16th, 2013)

President Obama can – and will – take steps on immigration reform in the event Congress doesn't reach a comprehensive deal this year, according to several House Democratic leaders.¶ While the Democrats are hoping Congress will preclude any executive action by enacting reforms legislatively, they say the administration has the tools to move unilaterally if the bipartisan talks on Capitol Hill break down. Furthermore, they say, Obama stands poised to use them.¶ "I don't think the president will be hands off on immigration for any moment in time," Rep. Xavier Becerra (D-Calif.), the head of the House Democratic Caucus, told reporters this week. "He's ready to move forward if we're not."¶ Rep. Joseph Crowley (N.Y.), vice chairman of the Democratic Caucus, echoed that message, saying Obama is "not just beating the drum," for immigration reform, "he's actually the drum major."¶ "There are limitations as to what he can do with executive order," Crowley said Wednesday, "but he did say that if Congress continued to fail to act that he would take steps and measures to enact common-sense executive orders to move this country forward."¶ Rep. Raul Grijalva (D-Ariz.), who heads the Congressional Progressive Caucus, said there are "plenty" of executive steps Obama could take if Congress fails to pass a reform package. "The huge one," Grijalva said, is "the waiving of deportation" in order to keep families together.¶ "Four million of the undocumented [immigrants] are people who overstayed their visas to stay with family," he said Friday. "So that would be, I think, an area in which … there's a great deal of executive authority that he could deal with."¶ The administration could also waive visa caps, Grijalva said, to ensure that industries like agriculture have ample access to low-skilled labor.¶ "Everybody's for getting the smart and the talented in, but there's also a labor flow issue," he said.¶ To be sure, Obama and congressional Democrats would prefer the reforms to come through Congress – both because that route would solidify the changes into law and because it would require bipartisan buy-in.¶ Still, House Republicans have been loath to accept one of the central elements of Obama's strategy: A pathway to citizenship for the estimated 11-12 million undocumented people currently living in the country – a move which many conservatives deem "amnesty."¶ Indeed, when the House Judiciary Committee met earlier this month on immigration reform, much of the discussion focused on whether there is some middle ground between citizenship and mass deportation.¶ “If we can find a solution that is … short of a pathway to citizenship, but better than just kicking 12 million people out, why is that not a good solution?” Rep. Raul Labrador (R-Idaho) asked during the hearing.¶ Obama on Tuesday spent a good portion of his State of the Union address urging Congress to send him a comprehensive immigration reform bill this year. Central to that package, he said, should be provisions for "strong border security," for "establishing a responsible pathway to earned citizenship" and for "fixing the legal immigration system to cut waiting periods and attract the highly-skilled entrepreneurs and engineers that will help create jobs and grow our economy."¶ "We know what needs to be done," Obama said. "So let’s get this done."¶ Becerra said he and other immigration reformers have had two meetings with the White House on immigration this month, one with the executive team working on the issue and, more recently, with Obama himself. Becerra said administration officials "essentially" know what reforms they want – "and they have communicated that to both House and Senate members, bipartisanly" – but they also want Congress to take the lead.¶ "They're giving Congress a chance to work its will to move this," Becerra said. "But … I don't think he's going to wait too long.¶ "If you were to ask him would he be prepared to submit a bill if Congress isn't ready … he would tell you, I have no doubt, 'I can do it in a heartbeat,'" Becerra added. "The president will move forward where he can if Congress doesn't act."¶ Indeed, Obama has already shown a willingness to do just that. Last summer, just months before November's elections, Obama shocked political observers when he launched a program through the Department of Homeland Security (DHS) allowing undocumented immigrants brought to the country as children to remain without threat of deportation. The two-year "deferred action" was modeled on the Dream Act legislation that has been unable to pass Congress.¶ The change was not an executive order, but an extension of "prosecutorial discretion" on the part of the DHS.¶ Although conservatives howled about administrative overreach, Obama's gamble paid off, as the president won more than 70 percent of the Hispanic vote at the polls – a margin that has fueled the drive for immigration reform this year, as GOP leaders are anxious to avoid a similar divide in 2016.¶ Grijalva said the expansion of the deferred action program represents another opportunity for Obama to move immigration reform administratively.

**President has wide authority – solves the impact\*\*\***

**Kerwin** et al., March 20**11** [Donald M Kerwin, VP for Programs at the Migration Policy Institute, “Executive Action on Immigration”, <http://www.migrationpolicy.org/pubs/administrativefixes.pdf>, CMR]

It is now commonplace to describe the nation’s immigration system as broken. The presence of 11 million unauthorized residents – almost 30 percent of the nation’s foreign-born population – vividly illustrates the problem. **Congress has failed** in successive efforts **over several years to enact reforms.** **Whether reform initiatives move ahead or stall in this new Congress**, **a wide body of immigration law is on the books**, **executive-branch agencies administer and enforce those laws daily, and** approximately **1 million people immigrate legally** to the United States **each year.** In short, current laws and actions taken by immigration officials affect millions of lives anually. **In the absence of legislation**, **the locus for policy action increasingly resides in the executive branch**, **intensifying the imperative for policies,** programs, and procedures **that are effective and fair in advancing the core goals of the nation’s immigration system: promoting family unity, meeting legitimate labor market needs, offering protection** from persecution, **and awarding US citizenship** as an important step toward full incorporation into US society. Achieving these goals depends on effective immigration enforcement that ensures both border and national security, economic competitiveness, community safety, and a level playing field for American workers.

### Capital Not Key

#### Hasn’t been involved since January

**AP 3/28** – (2013, Associated Press, “Obama 'confident' immigration bill could pass by summer,” <http://www.foxnews.com/politics/2013/03/28/obama-says-immigration-bill-could-pass-by-summer/>)

The president made little progress in overhauling the nation's fractured immigration laws in his first term, but he redoubled his efforts after winning re-election. The November contest also spurred some Republicans to drop their opposition to immigration reform, given that Hispanics overwhelmingly backed Obama. In an effort **to keep Republicans at the negotiation table, Obama has stayed** relatively **quiet on immigration** over the last month. He rolled out his immigration principles during a January rally in Las Vegas and made an impassioned call for overhauling the nation's laws during his early February State of the Union address, then **purposely handed off the effort to lawmakers**.