### 2AC T

#### 1) We meet their interpretation – NRC requirements restrict the quantity of energy produced because they mandate that zero energy can be produced from SMR’s that don’t meet the requirements established for large reactors. The aff’s that they say are topical like offshore drilling cannot be coherently distinguished from NRC restrictions

#### 2) The negatives interpretation is overlimiting – there are no restrictions that define the amount of energy that can be produced in the United States. Incentive aff’s don’t check because of the states counterplan and the importance of restrictions in the literature. Prefer underlimiting to overlimiting. The 1AC is the foundation of the debate which means the quality of affirmative options determine the quality of resulting debates and the productive value of debate. Democracy assistance topic proves.

#### 3) Counter Interpretation –

#### a) Restriction means limitation or qualification

Mattice, US District Judge, 07

(Wright v. Tenn. Bd. of Examiners in Psychology, 2004 Tenn. App. LEXIS 875)

In the instant case, the Court is required to interpret the word "restriction" as used by the parties in the Agreement. The parties apparently agree that the legal definition of restriction--"a limitation or qualification," Black's Law Dictionary 1341 (8th ed. 1999)--is a good place to start. Thus, the Court must determine whether the board's supervision requirement falls within this definition.

#### b) That limitation has to be legally imposed – includes regulation

Gerald N. Hill and Kathleen T. Hill – 2005, the Free Dictionary, http://legal-dictionary.thefreedictionary.com/Restrictions

restriction n. any limitation on activity, by statute, regulation or contract provision. In multi-unit real estate developments, condominium and cooperative housing projects, managed by homeowners' associations or similar organizations are usually required by state law to impose restrictions on use. Thus, the restrictions are part of the "covenants, conditions and restrictions," intended to enhance the use of common facilities and property, recorded and incorporated into the title of each owner.

#### 4) Prefer the counter interpretation’s legal definition

#### a) Predictability – legal definitions with the intent to define are the most precise and the law provides a neutral universally accessible definition base. Their definition promotes context specific distortions.

#### b) Education - the law determines the scope of public policy responses and thus determines how scholars write about energy production restrictions. Ensures substantive and meaningful debates based in on the ground realities.

#### 5) Our interpretation is not under limiting – we only allow aff’s that make something legal that is currently illegal – process and effectual restrictions would not be topical. Advantage and solvency requirements check their ludicrous limits claims.

# ONCASE

### 2AC Growth Good/Yes War

#### Economic decline causes war –

Failed States – Economic decline causes states to turn into hotspots of terrorism and pandemics – cause extinction

Reversal of Democracy – Turns their impact – autocratic regimes will exploit the environment to maintain their power

Scares Allies – US economic decline makes allies doubt our commitment – makes them engage in regional nuclear war

Chinese expansionism – China will revert to aggressive nationalism and attack the rest of Asia – draws in all major powers

Green & Schrage + Lieberthal & O’Hanlon

#### We have already crossed the threshold of sustainability – Continued technological advancement is key to undo the damage and prevent extinction of all species

AtKisson 1 (President and CEO of The AtKisson Group, an international sustainability consultancy to business and government, “Sustainability is Dead— Long Live Sustainability” <http://www.rrcap.unep.org/uneptg06/course/Robert/SustainabilityManifesto2001.pdf>)

The evidence that we are beyond the limits to growth is by now overwhelming: the alarms include climatic change, disappearing biodiversity, falling human sperm counts, troubling slow-downs in food production after decades of rapid expansion, the beginning of serious international tensions over basic needs like water. Wild storms and floods and eerie changes in weather patterns are but a first visible harbinger of more serious trouble to come, trouble for which we are not adequately prepared. Indeed, change of all kinds—in the Biosphere (nature as a whole), the Technosphere (the entirety of human manipulation of nature), and the Noösphere (the collective field of human consciousness)—is happening so rapidly that it exceeds our capacity to understand it, control it, or respond to it adequately in corrective ways. Humanity is simultaneously entranced by its own power, overwhelmed by the problems created by progress, and continuing to steer itself over a cliff. Our economies and technologies are changing certain basic structures of planetary life, such as the balance of carbon in the atmosphere, genetic codes, the amount of forest cover, species variety and distribution, and the foundations of cultural identity. Unless we make technological advances of the highest order, many of the destructive changes we are causing to nature are irreversible. Extinct species cannot (yet) be brought back to life. No credible strategy for controlling or reducing carbon dioxide levels in the atmosphere has been put forward. We do not know how to fix what we’re breaking. At the same time, some of the very products of our technology— plutonium, for instance—require of us that we maintain a very high degree of cultural continuity, economic and political stability, and technological capacity and sophistication, far into the future. To ensure our safety and the safety of all forms of life, we must always be able to store, clean up, and contain poisons like plutonium and persistent organic toxins. Eventually we must be able to eliminate them safely. At all times, we must be able to contain the actions of evil or unethical elements in our societies who do not care about the consequences to life of unleashing our most dangerous creations. In the case of certain creations, like nuclear materials and some artificially constructed or genetically modified organisms, our secure custodianship must be maintained for thousands of years. We are, in effect, committed to a high-technology future. Any slip in our mastery over the forces now under our command could doom our descendants—including not just human descendants, but also those wild species still remaining in the oceans and wilderness areas—to unspeakable suffering. We must continue down an intensely scientific and technological path, and we can never stop.

### 2AC No Transition

#### No transition because of energy sources – that’s McNelis – mindset shifts are insufficient to meet demand in electricity, practical action is key

#### Alternatives to growth kill hundreds of millions and cause global conflict—we can’t “*turn off*” the economy.

Barnhizer 6 — David R. Barnhizer, Emeritus Professor at Cleveland State University’s Cleveland-Marshall College of Law, 2006 (“Waking from Sustainability's "Impossible Dream": The Decisionmaking Realities of Business and Government,” *Georgetown International Environmental Law Review* (18 Geo. Int'l Envtl. L. Rev. 595), Available Online to Subscribing Institutions via Lexis-Nexis)

The scale of social needs, including the need for expanded productive activity, has grown so large that it cannot be shut off at all, and certainly not abruptly. It cannot even be ratcheted down in any significant fashion without producing serious harms to human societies and hundreds of millions of people. Even if it were possible to shift back to systems of local self-sufficiency, the consequences of the transition process would be catastrophic for many people and even deadly to the point of continual conflict, resource wars, increased poverty, and strife. What are needed are concrete, workable, and pragmatic strategies that produce effective and intelligently designed economic activity in specific contexts and, while seeking efficiency and conservation, place economic and social justice high on a list of priorities. n60

The imperative of economic growth applies not only to the needs and expectations of people in economically developed societies but also to people living in nations that are currently economically underdeveloped. Opportunities must be created, jobs must be generated in huge numbers, and economic resources expanded to address the tragedies of poverty and inequality. Unfortunately, natural systems must be exploited to achieve this; we cannot return to Eden. The question is not how to achieve a static state but how to achieve what is needed to advance social justice while avoiding and mitigating the most destructive consequences of our behavior.

#### Transitioning back to local economies is impossible—globalization is too entrenched.

Barnhizer 6 — David R. Barnhizer, Emeritus Professor at Cleveland State University’s Cleveland-Marshall College of Law, 2006 (“Waking from Sustainability's "Impossible Dream": The Decisionmaking Realities of Business and Government,” *Georgetown International Environmental Law Review* (18 Geo. Int'l Envtl. L. Rev. 595), Available Online to Subscribing Institutions via Lexis-Nexis)

Globalization's ability to produce wealth for a particular group simultaneously produces harms to different people and interests and generates unfair resource redistribution within existing cultures. This is an unavoidable consequence of globalization. n62 The problem is that globalization has altered the rules of operation of political, economic, and social activities, and in doing so multiplied greatly our ability to create benefit and harm. n63 While some understandably want the unsettling and often chaotic effects of globalization to go away, it can only be dealt with, not reversed. The system in which we live and work is no longer closed. There are few contexts not connected to the dynamics of some aspect of the extended economic and social systems resulting from globalization. This means the wide ranging and incompatible variables of a global economic, human rights, and social fairness system are resulting in conflicts and unanticipated interpenetrations that no one fully understands, anticipates, or controls. n64 Local [\*622] self-sufficiency is the loser in this process. It can remain a nostalgic dream but rarely a reality. Except for isolated cultures and niche activities, there is very little chance that anyone will be unaffected by this transformational process. Change is the constant, and it will take several generations before we return to a period of relative stasis. Even then it will only be a respite before the pattern once again intensifies.

### 2AC Sustainability

#### The aff makes growth sustainable – SMRs provide carbon-free energy on a large scale – resolves the warrants in their evidence

#### Collapse doesn’t create a new order – empirics

Mead 9

2/4, Walter Russell, Henry A. Kissinger Senior Fellow in U.S. Foreign Policy at the Council on Foreign Relations, Only Makes You Stronger: Why the recession bolstered America, The New Republic

Even before the Panic of 2008 sent financial markets into turmoil and launched what looks like the worst global recession in decades, talk of American decline was omnipresent. In the long term, the United States faces the rise of Asia and the looming fiscal problems posed by Medicare and other entitlement programs. In the short term, there is a sense that, after eight years of George W. Bush, the world, full of disdain for our way of life, seems to be spinning out of our--and perhaps anybody's--control. The financial panic simply brought all that simmering anxiety to a boil, and the consensus now seems to be that the United States isn't just in danger of decline, but in the full throes of it--the beginning of a "post-American" world. Perhaps--but the long history of capitalism suggests another possibility. After all, capitalism has seen a steady procession of economic crises and panics, from the seventeenth-century Tulip Bubble in the Netherlands and the Stop of the Exchequer under Charles II in England through the Mississippi and South Sea bubbles of the early eighteenth century, on through the crises associated with the Napoleonic wars and the spectacular economic crashes that repeatedly wrought havoc and devastation to millions throughout the nineteenth century. The panics of 1837, 1857, 1873, 1893, and 1907 were especially severe, culminating in the Great Crash of 1929, which set off a depression that would not end until World War II. The series of crises continued after the war, and the last generation has seen the Penn Central bankruptcy in 1970, the first Arab oil crisis of 1973, the Third World debt crisis of 1982, the S&L crisis, the Asian crisis of 1997, the bursting of the dot-com bubble in 2001, and today's global financial meltdown. And yet, this relentless series of crises has not disrupted the rise of a global capitalist system, centered first on the power of the United Kingdom and then, since World War II, on the power of the United States. After more than 300 years, it seems reasonable to conclude that financial and economic crises do not, by themselves, threaten either the international capitalist system or the special role within it of leading capitalist powers like the United Kingdom and the United States. If anything, the opposite seems true--that financial crises in some way sustain Anglophone power and capitalist development.

### 2AC Warming

#### Energy demands inevitable – only nuclear power transition can solve emissions – that McNelis

#### Warming inevitable and there’s nothing you can do about it

Solomon et al, IPCC Climate Science Co-Chair, ‘09 (Susan- member of the US National Academy of Sciences, the European Academy of Sciences, and the Academy of Sciences of France, Nobel Peace Prize Winner, Chairwoman of the IPCC, February 10, “Irreversible climate change due to carbon dioxide emissions” PNAS, Vol 106, http://www.pnas.org/content/early/2009/01/28/0812721106.full.pdf)

Over the 20th century, the atmospheric concentrations of key greenhouse gases increased due to human activities. The stated objective (Article 2) of the United Nations Framework Convention on Climate Change (UNFCCC) is to achieve stabilization of greenhouse gas concentrations in the atmosphere at a low enough level to prevent ‘‘dangerous anthropogenic interference with the climate system.’’ Many studies have focused on projections of possible 21st century dangers (1–3). However, the principles (Article 3) of the UNFCCC specifically emphasize ‘‘threats of serious or irreversible damage,’’ underscoring the importance of the longer term. While some irreversible climate changes such as ice sheet collapse are possible but highly uncertain (1, 4), others can now be identified with greater confidence, and examples among the latter are presented in this paper. It is not generally appreciated that the atmospheric temperature increases caused by rising carbon dioxide concentrations are not expected to decrease significantly even if carbon emissions were to completely cease (5–7) (see Fig. 1). Future carbon dioxide emissions in the 21st century will hence lead to adverse climate changes on both short and long time scales that would be essentially irreversible (where irreversible is defined here as a time scale exceeding the end of the millennium in year 3000; note that we do not consider geo-engineering measures that might be able to remove gases already in the atmosphere or to introduce active cooling to counteract warming). For the same reason, the physical climate changes that are due to anthropogenic carbon dioxide already in the atmosphere today are expected to be largely irreversible. Such climate changes will lead to a range of damaging impacts in different regions and sectors, some of which occur promptly in association with warming, while others build up under sustained warming because of the time lags of the processes involved. Here we illustrate 2 such aspects of the irreversibly altered world that should be expected. These aspects are among reasons for concern but are not comprehensive; other possible climate impacts include Arctic sea ice retreat, increases in heavy rainfall and flooding, permafrost melt, loss of glaciers and snowpack with attendant changes in water supply, increased intensity of hurricanes, etc. A complete climate impacts review is presented elsewhere (8) and is beyond the scope of this paper. We focus on illustrative adverse and irreversible climate impacts for which 3 criteria are met: (i) observed changes are already occurring and there is evidence for anthropogenic contributions to these changes, (ii) the phenomenon is based upon physical principles thought to be well understood, and (iii) projections are available and are broadly robust across models. Advances in modeling have led not only to improvements in complex Atmosphere–Ocean General Circulation Models (AOGCMs) for projecting 21st century climate, but also to the implementation of Earth System Models of Intermediate Complexity (EMICs) for millennial time scales. These 2 types of models are used in this paper to show how different peak carbon dioxide concentrations that could be attained in the 21st century are expected to lead to substantial and irreversible decreases in dry-season rainfall in a number of already-dry subtropical areas and lower limits to eventual sea level rise of the order of meters, implying unavoidable inundation of many small islands and low-lying coastal areas. Results Longevity of an Atmospheric CO2 Perturbation. As has long been known, the removal of carbon dioxide from the atmosphere involves multiple processes including rapid exchange with the land biosphere and the surface layer of the ocean through air–sea exchange and much slower penetration to the ocean interior that is dependent upon the buffering effect of ocean chemistry along with vertical transport (9–12). On the time scale of a millennium addressed here, the CO2 equilibrates largely between the atmosphere and the ocean and, depending on associated increases in acidity and in ocean warming (i.e., an increase in the Revelle or ‘‘buffer’’ factor, see below), typically 20% of the added tonnes of CO2 remain in the atmosphere while 80% are mixed into the ocean. Carbon isotope studies provide important observational constraints on these processes and time constants. On multimil- lenium and longer time scales, geochemical and geological processes could restore atmospheric carbon dioxide to its pre- industrial values (10, 11), but are not included here. Fig. 1 illustrates how the concentrations of carbon dioxide would be expected to fall off through the coming millennium if manmade emissions were to cease immediately following an illustrative future rate of emission increase of 2% per year [comparable to observations over the past decade (ref. 13)] up to peak concentrations of 450, 550, 650, 750, 850, or 1,200 ppmv; similar results were obtained across a range of EMICs that were assessed in the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (5, 7). This is not intended to be a realistic scenario but rather to represent a test case whose purpose is to probe physical climate system changes. A more gradual reduction of carbon dioxide emission (as is more likely), or a faster or slower adopted rate of emissions in the growth period, would lead to long-term behavior qualitatively similar to that illustrated in Fig. 1 (see also Fig. S1). The example of a sudden cessation of emissions provides an upper bound to how much reversibility is possible, if, for example, unexpectedly damaging climate changes were to be observed. Carbon dioxide is the only greenhouse gas whose falloff displays multiple rather than single time constants (see Fig. S2). Current emissions of major non-CO2 greenhouse gases such as methane or nitrous oxide are significant for climate change in the next few decades or century, but these gases do not persist over time in the same way as carbon dioxide (14). Fig. 1 shows that a quasi-equilibrium amount of CO2 is expected to be retained in the atmosphere by the end of the millennium that is surprisingly large: typically 40% of the peak concentration enhancement over preindustrial values ( 280 ppmv). This can be easily understood on the basis of the observed instantaneous airborne fraction (AFpeak) of 50% of anthropogenic carbon emissions retained during their buildup in the atmosphere, together with well-established ocean chemistry and physics that require 20% of the emitted carbon to remain in the atmosphere on thousand-year timescales [quasi- equilibrium airborne fraction (AFequi), determined largely by the Revelle factor governing the long-term partitioning of carbon between the ocean and atmosphere/biosphere system] (9–11). Assuming given cumulative emissions, EMI, the peak concen- tration, CO2peak (increase over the preindustrial value CO20), and the resulting 1,000-year quasi-equilibrium concentration, CO2equi can be expressed as COpeak 2 = CO02 + AFpeak EMI [1] COequi 2 = CO02 + AFequi EMI [2] so that COequi2 – CO0 2 = AFequi/AFpeak (COpeak 2 – CO02) [3] Given an instantaneous airborne fraction (AFpeak) of 50% during the period of rising CO2, and a quasi-equilbrium airborne factor (AFequi) of 20%, it follows that the quasi-equilibrium enhancement of CO2 concentration above its preindustrial value is 40% of the peak enhancement. For example, if the CO2 concentration were to peak at 800 ppmv followed by zero emissions, the quasi-equilibrium CO2 concentration would still be far above the preindustrial value at 500 ppmv. Additional carbon cycle feedbacks could reduce the efficiency of the ocean and biosphere to remove the anthropogenic CO2 and thereby increase these CO2 values (15, 16). Further, a longer decay time and increased CO2 concentrations at year 1000 are expected for large total carbon emissions (17). Irreversible Climate Change: Atmospheric Warming. Global average temperatures increase while CO2 is increasing and then remain approximately constant (within 0.5 °C) until the end of the millennium despite zero further emissions in all of the test cases shown in Fig. 1. This important result is due to a near balance between the long-term decrease of radiative forcing due to CO2 concentration decay and reduced cooling through heat loss to the oceans. It arises because long-term carbon dioxide removal and ocean heat uptake are both dependent on the same physics of deep-ocean mixing. Sea level rise due to thermal expansion accompanies mixing of heat into the ocean long after carbon dioxide emissions have stopped. For larger carbon dioxide concentrations, warming and thermal sea level rise show greater increases and display transient changes that can be very rapid (i.e., the rapid changes in Fig. 1 Middle), mainly because of changes in ocean circulation (18). Paleoclimatic evidence suggests that additional contributions from melting of glaciers and ice sheets may be comparable to or greater than thermal expansion (discussed further below), but these are not included in Fig. 1. Fig. 2 explores how close the modeled temperature changes are to thermal equilibrium with respect to the changing carbon dioxide concentration over time, sometimes called the realized warming fraction (19) (shown for the different peak CO2 cases). Fig. 2 Left shows how the calculated warmings compare to those expected if temperatures were in equilibrium with the carbon dioxide concentrations vs. time, while Fig. 2 Right shows the ratio of these calculated time-dependent and equilibrium tempera- tures. During the period when carbon dioxide is increasing, the realized global warming fraction is 50–60% of the equilibrium warming, close to values obtained in other models (5, 19). After emissions cease, the temperature change approaches equilib- rium with respect to the slowly decreasing carbon dioxide concentrations (cyan lines in Fig. 2 Right). The continuing warming through year 3000 is maintained at 40–60% of the equilibrium warming corresponding to the peak CO2 concentration (magenta lines in Fig. 2 Right). Related changes in fast-responding atmospheric climate variables such as precipitation, water vapor, heat waves, cloudiness, etc., are expected to occur largely simultaneously with the temperature changes. Irreversible Climate Change: Precipitation Changes. Warming is expected to be linked to changes in rainfall (20), which can adversely affect the supply of water for humans, agriculture, and ecosystems. Precipitation is highly variable but long-term rainfall decreases have been observed in some large regions including, e.g., the Mediterranean, southern Africa, and parts of south- western North America (21–25). Confident projection of future changes remains elusive over many parts of the globe and at small scales. However, well-known physics (the Clausius–Clapeyron law) implies that increased temperature causes increased atmospheric water vapor concentrations, and changes in water vapor transport and the hydrologic cycle can hence be expected (26–28). Further, advances in modeling show that a robust characteristic of anthropogenic climate change is poleward expansion of the Hadley cell and shifting of the pattern of precipitation minus evaporation (P–E) and the storm tracks (22, 26), and hence a pattern of drying over much of the already-dry subtropics in a warmer world ( 15°-40° latitude in each hemi- sphere) (5, 26). Attribution studies suggest that such a drying pattern is already occurring in a manner consistent with models including anthropogenic forcing (23), particularly in the south- western United States (22) and Mediterranean basin (24, 25). We use a suite of 22 available AOGCM projections based upon the evaluation in the IPCC 2007 report (5, 29) to characterize precipitation changes. Changes in precipitation are expected (5, 20, 30) to scale approximately linearly with increasing warming (see Fig. S3). The equilibrium relationship between precipitation and temperature may be slightly smaller (by 15%) than the transient values, due to changes in the land/ ocean thermal contrast (31). On the other hand, the observed 20th century changes follow a similar latitudinal pattern but presently exceed those calculated by AOGCMs (23). Models that include more complex representations of the land surface, soil, and vegetation interactively are likely to display additional feedbacks so that larger precipitation responses are possible. Here we evaluate the relationship between temperature and precipitation averaged for each month and over a decade at each grid point. One ensemble member is used for each model so that all AOGCMs are equally weighted in the multimodel ensemble; results are nearly identical if all available model ensemble members are used. Fig. 3 presents a map of the expected dry-season (3 driest consecutive months at each grid point) precipitation trends per degree of global warming. Fig. 3 shows that large uncertainties remain in the projections for many regions (white areas). How- ever, it also shows that there are some subtropical locations on every inhabited continent where dry seasons are expected to become drier in the decadal average by up to 10% per degree of warming. Some of these grid points occur in desert regions that are already very dry, but many occur in currently more temperate and semiarid locations. We find that model results are more robust over land across the available models over wider areas for drying of the dry season than for the annual mean or wet season (see Fig. S4). The Insets in Fig. 3 show the monthly mean projected precipitation changes averaged over several large regions as delineated on the map. Increased drying of respective dry seasons is projected by 90% of the models averaged over the indicated regions of southern Europe, northern Africa, southern Africa, and southwestern North America and by 80% of the models for eastern South America and western Australia (see Fig. S3). Although given particular years would show exceptions, the long-term irreversible warming and mean rainfall changes as suggested by Figs. 1 and 3 would have important consequences in many regions. While some relief can be expected in the wet season for some regions (Fig. S4), changes in dry-season precipitation in northern Africa, southern Europe, and western Australia are expected to be near 20% for 2 °C warming, and those of southwestern North America, eastern South America, and southern Africa would be 10% for 2 °C of global mean warming. For comparison, the American ‘‘dust bowl’’ was associated with averaged rainfall decreases of 10% over 10–20 years, similar to major droughts in Europe and western Australia in the 1940s and 1950s (22, 32). The spatial changes in precipitation as shown in Fig. 3 imply greater challenges in the distribution of food and water supplies than those with which the world has had difficulty coping in the past. Such changes occurring not just for a few decades but over centuries are expected to have a range of impacts that differ by region. These include, e.g., human water supplies (25), effects on dry-season wheat and maize agriculture in certain regions of rain-fed farming such as Africa (33, 34), increased fire frequency, ecosystem change, and desertification (24, 35–38). Fig. 4 Upper relates the expected irreversible changes in regional dry-season precipitation shown in Fig. 3 to best estimates of the corresponding peak and long-term CO2 concentrations. We use 3 °C as the best estimate of climate sensitivity across the suite of AOGCMs for a doubling of carbon dioxide from preindustrial values (5) along with the regional drying values depicted in Fig. 3 and assuming that 40% of the carbon dioxide peak concentration is retained after 1000 years. Fig. 4 shows that if carbon dioxide were to peak at levels of 450 ppmv, irreversible decreases of 8–10% in dry-season precipitation would be expected on average over each of the indicated large regions of southern Europe, western Australia, and northern Africa, while a carbon dioxide peak value near 600 ppmv would be expected to lead to sustained rainfall decreases of 13–16% in the dry seasons in these areas; smaller but statistically significant irreversible changes would also be expected for southwestern North America, eastern South America, and Southern Africa. Irreversible Climate Change: Sea Level Rise. Anthropogenic carbon dioxide will cause irrevocable sea level rise. There are 2 relatively well-understood processes that contribute to this and a third that may be much more important but is also very uncertain. Warm- ing causes the ocean to expand and sea levels to rise as shown in Fig. 1; this has been the dominant source of sea level rise in the past decade at least (39). Loss of land ice also makes important contributions to sea level rise as the world warms. Mountain glaciers in many locations are observed to be retreating due to warming, and this contribution to sea level rise is also relatively well understood. Warming may also lead to large losses of the Greenland and/or Antarctic ice sheets. Additional rapid ice losses from particular parts of the ice sheets of Greenland and Antarctica have recently been observed (40–42). One recent study uses current ice discharge data to suggest ice sheet contributions of up to 1–2 m to sea level rise by 2100 (42), but other studies suggest that changes in winds rather than warming may account for currently observed rapid ice sheet flow (43), rendering quantitative extrapolation into the future uncertain. In addition to rapid ice flow, slow ice sheet mass balance processes are another mechanism for potential large sea level rise. Paleoclimatic data demonstrate large contributions of ice sheet loss to sea level rise (1, 4) but provide limited constraints on the rate of such processes. Some recent studies suggest that ice sheet surface mass balance loss for peak CO2 concentrations of 400–800 ppmv may be even slower than the removal of manmade carbon dioxide following cessation of emis- sions, so that this loss could contribute less than a meter to irreversible sea level rise even after many thousands of years (44, 45). It is evident that the contribution from the ice sheets could be large in the future, but the dependence upon carbon dioxide levels is extremely uncertain not only over the coming century but also in the millennial time scale. An assessed range of models suggests that the eventual contribution to sea level rise from thermal expansion of the ocean is expected to be 0.2–0.6 m per degree of global warming (5). Fig. 4 uses this range together with a best estimate for climate sensitivity of 3 °C (5) to estimate lower limits to eventual sea level rise due to thermal expansion alone. Fig. 4 shows that even with zero emissions after reaching a peak concentration, irreversible global average sea level rise of at least 0.4–1.0 m is expected if 21st century CO2 concentrations exceed 600 ppmv and as much as 1.9 m for a peak CO2 concentration exceeding 1,000 ppmv. Loss of glaciers and small ice caps is relatively well understood and is expected to be largely complete under sustained warming of, for example, 4 °C within 500 years (46). For lower values of warming, partial remnants of glaciers might be retained, but this has not been examined in detail for realistic representations of glacier shrinkage and is not quantified here. Complete losses of glaciers and small ice caps have the potential to raise future sea level by 0.2–0.7 m (46, 47) in addition to thermal expansion. Further contributions due to partial loss of the great ice sheets of Antarctica and/or Greenland could add several meters or more to these values but for what warming levels and on what time scales are still poorly characterized. Sea level rise can be expected to affect many coastal regions (48). While sea walls and other adaptation measures might combat some of this sea level rise, Fig. 4 shows that carbon dioxide peak concentrations that could be reached in the future for the conservative lower limit defined by thermal expansion alone can be expected to be associated with substantial irreversible commitments to future changes in the geography of the Earth because many coastal and island features would ultimately become submerged. Discussion: Some Policy Implications It is sometimes imagined that slow processes such as climate changes pose small risks, on the basis of the assumption that a choice can always be made to quickly reduce emissions and thereby reverse any harm within a few years or decades. We have shown that this assumption is incorrect for carbon dioxide emissions, because of the longevity of the atmospheric CO2 perturbation and ocean warming. Irreversible climate changes due to carbon dioxide emissions have already taken place, and future carbon dioxide emissions would imply further irreversible effects on the planet, with attendant long legacies for choices made by contemporary society. Discount rates used in some estimates of economic trade-offs assume that more efficient climate mitigation can occur in a future richer world, but neglect the irreversibility shown here. Similarly, understanding of irreversibility reveals limitations in trading of greenhouse gases on the basis of 100-year estimated climate changes (global warming potentials, GWPs), because this metric neglects carbon dioxide’s unique long-term effects. In this paper we have quantified how societal decisions regarding carbon dioxide concentrations that have already occurred or could occur in the coming century imply irreversible dangers relating to climate change for some illustrative populations and regions. These and other dangers pose substantial challenges to humanity and nature, with a magnitude that is directly linked to the peak level of carbon dioxide reached.

### A2 Heg

#### Lieberthal and Ohanlon

### Coal

#### Low natural gas prices offset coal

Jaramillo, Assistant Research Professor - Department of Engineering and Public Policy, 12

(6/19, Implications of changing natural gas prices in the United States electricity sector for SO2, NOX and life cycle GHG emissions, iopscience.iop.org/1748-9326/7/3/034018/pdf/1748-9326\_7\_3\_034018.pdf

Projections of increased domestic natural gas supply and low prices have encouraged increased natural gas utilization in the United States electricity sector. Natural gas can offset coal, likely decreasing overall greenhouse gas (GHG) emissions and other air emissions such as SO2 and NOX. Previous life cycle assessment (LCA) studies using limited system boundaries have attempted to quantify the benefit of offsetting coal use. However, these studies do not consider that relative regional fuel prices may contribute most to the choice of coal over natural gas. External incentives such as low natural gas prices compared to coal are required if natural gas is to displace coal. In this study, simplified economic dispatch models are used to determine how natural gas utilization will increase in the short-term in response to changes in natural gas prices in three US grid regions—ERCOT, MISO and PJM. The results indicate that the change in air emissions is lower than suggested by LCAs, since LCAs generally do not include the complexity of regional electricity grids. For instance, this study estimates that life cycle GHG emissions may, at best, decrease by 7–15% due to low natural gas prices, compared to almost 50% reductions estimated by previous LCAs.

#### Extinction

Hansen, Director of Nasa's Goddard Institute for Space Studies, 09

(Coal-fired power stations are death factories. Close them, www.guardian.co.uk/commentisfree/2009/feb/15/james-hansen-power-plants-coal

A year ago, I wrote to Gordon Brown asking him to place a moratorium on new coal-fired power plants in Britain. I have asked the same of Angela Merkel, Barack Obama, Kevin Rudd and other leaders. The reason is this - coal is the single greatest threat to civilisation and all life on our planet. The climate is nearing tipping points. Changes are beginning to appear and there is a potential for explosive changes, effects that would be irreversible, if we do not rapidly slow fossil-fuel emissions over the next few decades. As Arctic sea ice melts, the darker ocean absorbs more sunlight and speeds melting. As the tundra melts, methane, a strong greenhouse gas, is released, causing more warming. As species are exterminated by shifting climate zones, ecosystems can collapse, destroying more species. The public, buffeted by weather fluctuations and economic turmoil, has little time to analyse decadal changes. How can people be expected to evaluate and filter out advice emanating from those pushing special interests? How can people distinguish between top-notch science and pseudo-science? Those who lead us have no excuse - they are elected to guide, to protect the public and its best interests. They have at their disposal the best scientific organisations in the world, such as the Royal Society and the US National Academy of Sciences. Only in the past few years did the science crystallise, revealing the urgency. Our planet is in peril. If we do not change course, we'll hand our children a situation that is out of their control. One ecological collapse will lead to another, in amplifying feedbacks. The amount of carbon dioxide in the air has already risen to a dangerous level. The pre-industrial carbon dioxide amount was 280 parts per million (ppm). Humans, by burning coal, oil and gas, have increased this to 385 ppm; it continues to grow by about 2 ppm per year. Earth, with its four-kilometre-deep oceans, responds only slowly to changes of carbon dioxide. So the climate will continue to change, even if we make maximum effort to slow the growth of carbon dioxide. Arctic sea ice will melt away in the summer season within the next few decades. Mountain glaciers, providing fresh water for rivers that supply hundreds of millions of people, will disappear - practically all of the glaciers could be gone within 50 years - if carbon dioxide continues to increase at current rates. Coral reefs, harbouring a quarter of ocean species, are threatened. The greatest danger hanging over our children and grandchildren is initiation of changes that will be irreversible on any time scale that humans can imagine. If coastal ice shelves buttressing the west Antarctic ice sheet continue to disintegrate, the sheet could disgorge into the ocean, raising sea levels by several metres in a century. Such rates of sea level change have occurred many times in Earth's history in response to global warming rates no higher than those of the past 30 years. Almost half of the world's great cities are located on coastlines. The most threatening change, from my perspective, is extermination of species. Several times in Earth's history, rapid global warming occurred, apparently spurred by amplifying feedbacks. In each case, more than half of plant and animal species became extinct. New species came into being over tens and hundreds of thousands of years. But these are time scales and generations that we cannot imagine. If we drive our fellow species to extinction, we will leave a far more desolate planet for our descendants than the world we inherited from our elders. Clearly, if we burn all fossil fuels, we will destroy the planet we know. Carbon dioxide would increase to 500 ppm or more. We would set the planet on a course to the ice-free state, with sea level 75 metres higher. Climatic disasters would occur continually. The tragedy of the situation, if we do not wake up in time, is that the changes that must be made to stabilise the atmosphere and climate make sense for other reasons. They would produce a healthier atmosphere, improved agricultural productivity, clean water and an ocean providing fish that are safe to eat. Fossil-fuel reservoirs will dictate the actions needed to solve the problem. Oil, of which half the readily accessible reserves have already been burnt, is used in vehicles, so it's impractical to capture the carbon dioxide. This is likely to drive carbon dioxide levels to at least 400 ppm. But if we cut off the largest source of carbon dioxide - coal - it will be practical to bring carbon dioxide back to 350 ppm, lower still if we improve agricultural and forestry practices, increasing carbon storage in trees and soil. Coal is not only the largest fossil fuel reservoir of carbon dioxide, it is the dirtiest fuel. Coal is polluting the world's oceans and streams with mercury, arsenic and other dangerous chemicals. The dirtiest trick that governments play on their citizens is the pretence that they are working on "clean coal" or that they will build power plants that are "capture-ready" in case technology is ever developed to capture all pollutants. The trains carrying coal to power plants are death trains. Coal-fired power plants are factories of death. When I testified against the proposed Kingsnorth power plant, I estimated that in its lifetime it would be responsible for the extermination of about 400 species - its proportionate contribution to the number that would be committed to extinction if carbon dioxide rose another 100 ppm

# OFFCASE

### 2AC Prolif Adv CP

#### Multiple conditional options bad – it’s a voter – rejecting the arg incentivizes abuse

#### First is skew – aff can’t read their best offense because the neg can just kick their argument and can cross-apply offense, kills fairness

#### Second is research – they can advocate contradictory positions, kills education and advocacy skills

#### One conditional advocacy solves their offense – we should get to advocate perms – only reciprocal option

#### Natural gas price volatility crushes the chemical industry

ACC, American Chemistry Council, 05

(THE IMPACTS OF HIGH ENERGY COSTS TO THE AMERICAN CONSUMER, www.gpo.gov/fdsys/pkg/CHRG-109hhrg21446/html/CHRG-109hhrg21446.htm)

The unbalanced and volatile U.S. natural gas market has had a severe impact on the chemical industry. Today, U.S. natural gas prices are the highest in the world--over $7 per million BTUs, versus $5.25 in Europe, $4.50 in China and Japan and $1.25 or less in the Middle East and Russia. The chemical industry is the backbone of our nation's manufacturing sector. It is the largest industrial user of natural gas. The chemical industry uses natural gas for heat and power, but also as a raw material, a key ingredient, used to make thousands of products that consumers use every day.

#### The chemical industry is key to solve sustainability problems – prevents extinction

Baum, Editor-in-chief of the American Chemical Society's Chemical and Engineering News, 99

(C&E News, “Millennium Special Report,” http://pubs.acs.org/hotartcl/cenear/991206/7749spintro2.html)

The pace of change in today's world is truly incomprehensible. Science is advancing on all fronts, particularly chemistry and biology working together as they never have before to understand life in general and human beings in particular at a breathtaking pace. Technology ranging from computers and the Internet to medical devices to genetic engineering to nanotechnology is transforming our world and our existence in it. It is, in fact, a fool's mission to predict where science and technology will take us in the coming decade, let alone the coming century. We can say with finality only this: We don't know. We do know, however, that we face enormous challenges, we 6 billion humans who now inhabit Earth. In its 1998 revision of world population estimates and projections,the United Nations anticipates a world population in 2050 of 7.3 billion to 10.7 billion, with a "medium-fertility projection," considered the most likely, indicating a world population of 8.9 billion people in 2050. According to the UN, fertility now stands at 2.7 births per woman, down from 5 births per woman in the early 1950s. And fertility rates are declining in all regions of the world. That's good news. But people are living a lot longer. That is certainly good news for the individuals who are living longer, but it also poses challenges for health care and social services the world over. The 1998 UN report estimates for the first time the number of octogenarians, nonagenarians, and centenarians living today and projected for 2050. The numbers are startling. In 1998, 66 million people were aged 80 or older, about one of every 100 persons. That number is expected to increase sixfold by 2050 to reach 370 million people, or one in every 24 persons. By 2050, more than 2.2 million people will be 100 years old or older! Here is the fundamental challenge we face: The world's growing and aging population must be fed and clothed and housed and transported in ways that do not perpetuate the environmental devastation wrought by the first waves of industrialization of the 19th and 20th centuries. As we increase our output of goods and services, as we increase our consumption of energy, as we meet the imperative of raising the standard of living for the poorest among us, we must learn to carry out our economic activities sustainably. There are optimists out there, C&EN readers among them, who believe that the history of civilization is a long string of technological triumphs of humans over the limits of nature. In this view, the idea of a "carrying capacity" for Earth—a limit to the number of humans Earth's resources can support—is a fiction because technological advances will continuously obviate previously perceived limits. This view has historical merit. Dire predictions made in the 1960s about the exhaustion of resources ranging from petroleum to chromium to fresh water by the end of the 1980s or 1990s have proven utterly wrong. While I do not count myself as one of the technological pessimists who see technology as a mixed blessing at best and an unmitigated evil at worst, I do not count myself among the technological optimists either. There are environmental challenges of transcendent complexity that I fear may overcome us and our Earth before technological progress can come to our rescue. Global climate change, the accelerating destruction of terrestrial and oceanic habitats, the catastrophic loss of species across the plant and animal kingdoms—these are problems that are not obviously amenable to straightforward technological solutions. But I know this, too: Science and technology have brought us to where we are, and only science and technology, coupled with innovative social and economic thinking, can take us to where we need to be in the coming millennium. Chemists, chemistry, and the chemical industry—what we at C&EN call the chemical enterprise—will play central roles in addressing these challenges. The first section of this Special Report is a series called ["Millennial Musings"](https://mail.kinkaid.org/Redirect/pubs.acs.org/hotartcl/cenear/991206/7749muse1.html) in which a wide variety of representatives from the chemical enterprise share their thoughts about the future of our science and industry. The five essays that follow explore the contributions the chemical enterprise is making right now to ensure that we will successfully meet the challenges of the 21st century. The essays do not attempt to predict the future. Taken as a whole, they do not pretend to be a comprehensive examination of the efforts of our science and our industry to tackle the challenges I've outlined above. Rather, they paint, in broad brush strokes, a portrait of scientists, engineers, and business managers struggling to make a vital contribution to humanity's future. manipulation and corporate control over food. The first essay, by Senior Editor Marc S. Reisch, is a case study of the [chemical industry's ongoing transformation to sustainable production.](https://mail.kinkaid.org/Redirect/pubs.acs.org/hotartcl/cenear/991206/7749sustain.html) Although it is not well known to the general public, the chemical industry is at the forefront of corporate efforts to reduce waste from production streams to zero. Industry giants DuPont and Dow Chemical are taking major strides worldwide to manufacture chemicals while minimizing the environmental "footprint" of their facilities.  This is an ethic that starts at the top of corporate structure. Indeed, Reisch quotes Dow President and Chief Executive Officer William S. Stavropolous: "We must integrate elements that historically have been seen as at odds with one another: the triple bottom line of sustainability—economic and social and environmental needs." DuPont Chairman and CEO Charles (Chad) O. Holliday envisions a future in which "biological processes use renewable resources as feedstocks, use solar energy to drive growth, absorb carbon dioxide from the atmosphere, use low-temperature and low-pressure processes, and produce waste that is less toxic." But sustainability is more than just a philosophy at these two chemical companies. Reisch describes ongoing Dow and DuPont initiatives that are making sustainability a reality at Dow facilities in Michigan and Germany and at DuPont's massive plant site near Richmond, Va.  Another manifestation of the chemical industry's evolution is its embrace of life sciences. Genetic engineering is a revolutionary technology. In the 1970s, research advances fundamentally shifted our perception of DNA. While it had always been clear that deoxyribonucleic acid was a chemical, it was not a chemical that could be manipulated like other chemicals—clipped precisely, altered, stitched back together again into a functioning molecule. Recombinant DNA techniques began the transformation of DNA into just such a chemical, and the reverberations of that change are likely to be felt well into the next century. Genetic engineering has entered the fabric of modern science and technology. It is one of the basic tools chemists and biologists use to understand life at the molecular level. It provides new avenues to pharmaceuticals and new approaches to treat disease. It expands enormously agronomists' ability to introduce traits into crops, a capability seized on by numerous chemical companies. There is no doubt that this powerful new tool will play a major role in [feeding the world's population](https://mail.kinkaid.org/Redirect/pubs.acs.org/hotartcl/cenear/991206/7749food.html) in the coming century, but its adoption has hit some bumps in the road. In the second essay, Editor-at-Large Michael Heylin examines how the promise of agricultural biotechnology has gotten tangled up in real public fear of genetic manipulation and corporate control over food.

### 2AC Courts

#### No net benefit – plan implemented by NRC

#### Perm – do both – solves politics

Zlotnick, law prof- RWU, 04 David M. Zlotnick, associate professor of law at the Roger Williams University School of Law, visiting professor of law at Washington College, Spring 2004, Roger Williams University Law Review, 9 Roger Williams U. L. Rev. 645, p. 684

On the federal level, the time has come to listen to the voices of reason. In a democracy that claims much of its strength from the power of an independent judiciary, we must heed the moment when its judges proclaim that democratically made laws are nevertheless morally flawed. While by rule and role, many judges feel compelled to restrain their voices, even small efforts may matter. Like the "Whos" of "Whoville" in the Dr. Suess classic, n196 sometimes all it takes is one more voice. **Now that the Justices of the Supreme Court are weighing in more forcefully, these voices of conscience may be heard above the din of political posturing**. Perhaps, too, **these judicial voices will provide political cover to a courageous politician of either party willing to take on this issue**. n197 Until that day, however, sentencing under the dual mandatory minimum and Guidelines regimes continues with prosecutors essentially serving as both partisan and judge. To federal judges, chosen for their experience and judgment, this makes a travesty of the justice they have sworn to uphold.

#### The president dwarfs other actors, and will get the credit or the blame

Bruce Miroff, professor and chair of political science at the State University of New York at Albany, 2000, The Presidency and the Political System, Ed. Michael Nelson, p. 304.

Spectacle has also been fostered by the president’s rise to primacy in the American political system. **A political order** originally **centered on institutions has given way**, **especially in the public mind, to a political order that centers on the** person of the **president**. Theodore Lowi wrote, “**Since the president has become the embodiment of government, it seems perfectly normal for millions** upon millions **of Americans to concentrate their hopes and fears directly and personally upon him**.”6 **The “**personal **president**” that Lowi described **is the object of popular expectations**; these expectations, Stephen Wayne and Thomas Cronin have shown, are both excessive and contradictory.7

### AT: Accidents DA

#### No safety turn – diminishing current regulations will not cause any accidents – that’s Marston

#### Strong domestic nuclear industry key to prevent global accidents

Wallace and Williams, Senior Adviser on U.S. Nuclear Energy Project at CSIS and Nuclear Policy Analyst at Partnership for Global Security, 12

(Nuclear Energy in America:Preventing its Early Demise, csis.org/files/publication/120417\_gf\_wallace\_williams.pdf)

Second, setting global norms and standards for safety, security, operations, and emergency response. As the world learned with past nuclear accidents and more recently with Fukushima, a major accident anywhere can have lasting repercussions everywhere. As with nonproliferation and security, America’s ability to exert leadership and influence in this area is directly linked to the strength of our domestic industry and our active involvement in the global nuclear enterprise. A strong domestic civilian industry and regulatory structure have immediate national security significance in that they help support the nuclear capabilities of the U.S. Navy, national laboratories, weapons complex, and research institutions. Third, in the past, the U.S. government could exert influence by striking export agreements with countries whose regulatory and legal frameworks reflected and were consistent with our own nonproliferation standards and commitments. At the same time, our nation set the global standard for effective, independent safety regulation (in the form of the Nuclear Regulatory Commission), led international efforts to reduce proliferation risks (through the 1970 NPT Treaty and other initiatives), and provided a model for industry self-regulation. The results were not perfect, but America’s institutional support for global nonproliferation goals and the regulatory behaviors it modeled clearly helped shape the way nuclear technology was adopted and used elsewhere around the world. This influence seems certain to wane if the United States is no longer a major supplier or user of nuclear technology. With existing nonproliferation and safety and security regimes looking increasingly inadequate in this rapidly changing global nuclear landscape, American leadership and leverage is more important and more central to our national security interests than ever. To maintain its leadership role in the development, design, and operation of a growing global nuclear energy infrastructure, the next administration, whether Democrat or Republican, must recognize the invaluable role played by the commercial U.S. nuclear industry and take action to prevent its early demise.

#### Fukushima proves accidents getting worse – extinction

Chossudovsky, Professor of Economics at University of Ottawa, 12

(1/25, Fukushima: A Nuclear War without a War: The Unspoken Crisis of Worldwide Nuclear Radiation, www.globalresearch.ca/fukushima-a-nuclear-war-without-a-war-the-unspoken-crisis-of-worldwide-nuclear-radiation/)

The World is at a critical crossroads. The Fukushima disaster in Japan has brought to the forefront the dangers of Worldwide nuclear radiation. The crisis in Japan has been described as “a nuclear war without a war”. In the words of renowned novelist Haruki Murakami: “This time no one dropped a bomb on us … We set the stage, we committed the crime with our own hands, we are destroying our own lands, and we are destroying our own lives.” Nuclear radiation –which threatens life on planet earth– is not front page news in comparison to the most insignificant issues of public concern, including the local level crime scene or the tabloid gossip reports on Hollywood celebrities. While the long-term repercussions of the Fukushima Daiichi nuclear disaster are yet to be fully assessed, they are far more serious than those pertaining to the 1986 Chernobyl disaster in the Ukraine, which resulted in almost one million deaths (New Book Concludes – Chernobyl death toll: 985,000, mostly from cancer Global Research, September 10, 2010, See also Matthew Penney and Mark Selden The Severity of the Fukushima Daiichi Nuclear Disaster: Comparing Chernobyl and Fukushima, Global Research, May 25, 2011) Moreover, while all eyes were riveted on the Fukushima Daiichi plant, news coverage both in Japan and internationally failed to fully acknowledge the impacts of a second catastrophe at TEPCO’s (Tokyo Electric Power Co Inc) Fukushima Daini nuclear power plant. The shaky political consensus both in Japan, the U.S. and Western Europe is that the crisis at Fukushima has been contained. The realties, however, are otherwise. Fukushima 3 was leaking unconfirmed amounts of plutonium. According to Dr. Helen Caldicott, “one millionth of a gram of plutonium, if inhaled can cause cancer”. The Impacts in Japan The Japanese government has been obliged to acknowledge that “the severity rating of its nuclear crisis … matches that of the 1986 Chernobyl disaster”. In a bitter irony, however, this tacit admission by the Japanese authorities has proven to been part of the cover-up of a significantly larger catastrophe, resulting in a process of global nuclear radiation and contamination: “While Chernobyl was an enormous unprecedented disaster, it only occurred at one reactor and rapidly melted down. Once cooled, it was able to be covered with a concrete sarcophagus that was constructed with 100,000 workers. There are a staggering 4400 tons of nuclear fuel rods at Fukushima, which greatly dwarfs the total size of radiation sources at Chernobyl.” ( Extremely High Radiation Levels in Japan: University Researchers Challenge Official Data, Global Research, April 11, 2011) Worldwide Contamination The dumping of highly radioactive water into the Pacific Ocean constitutes a potential trigger to a process of global radioactive contamination. Radioactive elements have not only been detected in the food chain in Japan, radioactive rain water has been recorded in California: “While Chernobyl was an enormous unprecedented disaster, it only occurred at one reactor and rapidly melted down. Once cooled, it was able to be covered with a concrete sarcophagus that was constructed with 100,000 workers. There are a staggering 4400 tons of nuclear fuel rods at Fukushima, which greatly dwarfs the total size of radiation sources at Chernobyl.” ( Extremely High Radiation Levels in Japan: University Researchers Challenge Official Data, Global Research, April 11, 2011)

#### XT Rosner & Goldberg – fast key to solve

### 2AC PTX

#### No bioweapon could kill off humanity – natural resistance and technology check a superbug

Easterbrook (Gregg, The New Republic Editor) 2003 [Wired, "We're All Gonna Die!" 11/7, http://www.wired.com/wired/archive/11.07/doomsday.html]

3. Germ warfare! Like chemical agents, biological weapons have never lived up to their billing in popular culture. Consider the 1995 medical thriller Outbreak, in which a highly contagious virus takes out entire towns. The reality is quite different. Weaponized smallpox escaped from a Soviet laboratory in Aralsk, Kazakhstan, in 1971; three people died, no epidemic followed. In 1979, weapons-grade anthrax got out of a Soviet facility in Sverdlovsk (now called Ekaterinburg); 68 died, no epidemic. The loss of life was tragic, but no greater than could have been caused by a single conventional bomb. In 1989, workers at a US government facility near Washington were accidentally exposed to Ebola virus. They walked around the community and hung out with family and friends for several days before the mistake was discovered. No one died. The fact is, evolution has spent millions of years conditioning mammals to resist germs. Consider the Black Plague. It was the worst known pathogen in history, loose in a Middle Ages society of poor public health, awful sanitation, and no antibiotics. Yet it didn't kill off humanity. Most people who were caught in the epidemic survived. Any superbug introduced into today's Western world would encounter top-notch public health, excellent sanitation, and an array of medicines specifically engineered to kill bioagents. Perhaps one day some aspiring Dr. Evil will invent a bug that bypasses the immune system. Because it is possible some novel superdisease could be invented, or that existing pathogens like smallpox could be genetically altered to make them more virulent (two-thirds of those who contract natural smallpox survive), biological agents are a legitimate concern. They may turn increasingly troublesome as time passes and knowledge of biotechnology becomes harder to control, allowing individuals or small groups to cook up nasty germs as readily as they can buy guns today. But no superplague has ever come close to wiping out humanity before, and it seems unlikely to happen in the future.

#### Countries won’t use bioweapons- they are too unrealiable

MIT 2 (Ocotber 30, pg. http://web.mit.edu/newsoffice/2002/anthrax-1030.html)

Biological weapons - which could contain germs that cause diseases such as anthrax, smallpox, brucellosis or tularemia - are not effective tactical military weapons. They do not immediately harm enemy soldiers on the battlefield, or destroy artillery, tanks or munitions supplies. And each germ has its drawbacks. Smallpox, for example, is highly contagious, so it could harm friendly soldiers. Anthrax is not contagious, but if it gets in the soil for long periods of time, it can kill cattle and other animals. In addition, the efficacy of biological weapons hinges on several factors, including how many germs survive the explosion of the small bomb in which they are contained, whether the wind is blowing in the correct direction and strongly enough to carry the germs over a target, what constitutes a lethal dose, and how many people will get infected or die. Depending on the germ, as few as 1 to 4 percent of the exposed population may get infected, and estimates of mortality rates vary. "If the wind is blowing one way you have a weapon. If not, you don't," said Guillemin.

#### C/A C-X no one can do bioterror right now

#### Fiscal crises will crowd out immigration regardless of Obama’s prioritization

Financial Express, 1/6 (“Budget battles threaten to cap Obama 2nd-term plan,” 1/6/2013, Factiva)

After a brutal "fiscal cliff" battle, president Barack Obama's looming budget confrontation with Congress threatens to sharply curtail his second-term agenda and limit his ambitions on priorities such as immigration reform and gun control. Obama has vowed to push ahead with other legislative priorities during the fiscal fight, but faces the likelihood that they will be elbowed aside in a fierce struggle with Republicans over approaching deadlines to raise the limit on federal borrowing, cut spending and fund government operations. Obama and Congress must agree by the end of March on increasing the $16.4 trillion debt ceiling, the fate of $85 billion in delayed automatic spending cuts and passage of a bill to fund the government after a temporary measure expires. Those budget battles could be even more intense than the weeks-long "fiscal cliff" fight that ended on New Year's Day with an agreement to raise taxes on the wealthy, leaving divided Republicans itching for revenge and a fractured relationship between Obama and Republican House Speaker John Boehner. "We always felt that a bipartisan and amicable conclusion to the fiscal cliff would lead to a very positive agenda for the next two years, and the opposite occurred. It bodes poorly for Obama's other major priorities," said Jim Kessler, senior vice president for policy at the centrist think tank Third Way. "There is a high level of dysfunction. They haven't cracked the code yet on how to work with each other," Kessler said of Obama and congressional Republicans. The fiscal cliff fight overwhelmed nearly everything else at the White House for two months. A similar result in the budget battle would be bad news for Obama, cutting into the narrow one-year to 18-month window when second-term presidents traditionally still have the political clout to achieve their most significant legislative victories. "From a Republican standpoint, if you don't want Obama to get any oxygen on these other issues, focusing on the fiscal cliff and all these budget issues is a very good way to run out the clock on him," said Republican strategist John Feehery, a former Capitol Hill aide. Obama has promised to pursue a broad second-term agenda focused on comprehensive immigration reform, bolstering domestic energy production, fighting climate change and gun control.

#### No link – plan is done by the NRC – Obama won’t get involved

#### Debt ceiling and gun control are sooner and make the link inevitable

Nakamura and Bahrampour, 1/4 (David Nakamura Tara Bahrampour, 1/4/2013, Washington Post, “Obama prioritizing immigrant issues,” Factiva)

Although Obama has pledged to push for comprehensive legislation early in his second term, the White House's timetable has been complicated by the prospect of another round of fiscal negotiations over the debt ceiling in February and the president's pledge to support a gun-control bill in the wake of the mass school shooting in Newtown, Conn. Both of those issues are likely to embroil the White House in bitter, time-consuming political battles with Republicans, particularly in the GOP-controlled House. Advocates said they are hopeful that Republicans will respond more favorably to immigration reform because the party is eager to broaden its appeal to minority groups in the wake of Obama's election victory.

#### Burns capital

The Nation, 12/23 (“us gun association says guns needed to stop evil,” 12/23/2012, Factiva)

The National Rifle Association's response to the Connecticut school shooting means any effort to pass new gun-control laws must overcome opposition from an organisation with longstanding clout in Congress.NRA chief executive officer Wayne LaPierre on Friday dismissed calls for tighter gun limits and instead recommended armed school guards following the massacre of 20 children and six adults. That stance puts the NRA on a collision course with President Barack Obama, who promised after the December 14 rampage to make abating gun violence a second-term priority. While not unexpected, the NRA's continued resistance to new firearms restrictions will make it more difficult to enact such measures, said Robert Spitzer, a political scientist who has written four books on gun control. "It's going to be a hard fight," Spitzer said. Obama has called for reinstating an assault-weapons ban that expired in 2004, closing loopholes that allow gun buyers to escape background checks and restricting high-capacity ammunition clips. In a video posted on Google's YouTube website, the president urged gun-control advocates to pressure Congress to act. To overcome NRA opposition, Spitzer said, Obama will have to spend some of the political capital he gained with his re- election last month. The Fairfax, Virginia-based gun-rights group spent US$12 million (Bt360 million) seeking to deny Obama a second term. "It's the ideal moment of any newly elected president to offer a new idea," said Spitzer, who is chairman of the political science department at the State University of New York at Cortland. In addition, the Newtown killings, in which most of the victims were first-graders, "shocked people in a way that other mass shootings did not", he said. "When that happens, the NRA is at its low point of political influence." Still, the NRA remains a formidable force, with 4 million members and a well-funded political advocacy arm that, including its political action committee, spent $35 million for the 2012 election, according to the Centre for Responsive Politics, a Washington-based research group.

#### Logical policymaker pass the plan and pass immigration reform

#### Biden solves --- he can negotiate deals for the administration

Fifield, 1/5 (Anna, 1/5/2013, The Irish Times, “Down-to-earth Biden rising to challenge on Capitol Hill,” Factiva)

The vice-president will become a more important player in the second termWhen Joseph Biden was taking new senators through a practice run of their swearing-in ceremony this week, doubtless one of the most adrenalin-inducing experiences of their lives, the US vice-president could not help but crack a string of jokes. “This guy looks like he still plays for South Carolina,” Biden (70), who served 36 years in the US Senate, said of Tim Scott (47), the newly appointed Republican senator for South Carolina, as he met the former football player and his family in the hallowed chamber this week. “Need any help on your pecs, man, give me a call,” said Biden. This is vintage Biden – the down-to-earth blue-collar Joe who puts people at ease in even the most formal of settings, but who can never be relied upon to keep his foot out of his mouth. More prominent role After four years as US president Barack Obama’s deputy, a revitalised Biden is set to play an increasingly prominent role in the administration’s second term.“Biden is becoming a very important player not just because he knows the Senate and senators trust him, but because Obama has a very strong relationship with him,” says Norman Ornstein, a veteran political analyst who has known the vice-president for decades. Biden’s long experience in the Senate – stretching back to the time when “bipartisan” was not a slanderous term – has made him Obama’s go-to guy when he needs someone to bang heads together on Capitol Hill. During their first term, Biden was called in to help broker deals on the contentious healthcare reforms – which he had initially advised Obama against pushing – and extending the Bush-era tax cuts in 2010. As the US teetered on the edge of the fiscal precipice last week, it was Biden who was dispatched to the Hill to work out a deal with Mitch McConnell, the Republican leader in the Senate, after majority leader Harry Reid’s efforts came to nothing. “The vice-president and I have worked together on solutions before, and I believe we can again,” McConnell said. Analysts say this McConnell-Biden arrangement is likely to become the cornerstone of dealmaking over the next few years.After the deal was passed by the House, Biden stood at Obama’s side in the White House close to midnight as the president said: “I want to thank the work that was done by my extraordinary vice-president, Joe Biden.” During their first term, Biden’s main areas of responsibility in the White House were Iraq and the Recovery Act, both of which have come to an end. In their second term, Biden can be expected to take on a leading – if somewhat behind-the-scenes – role pushing the president’s ambitious legislative agenda. Gun control First up is gun control, one of the most politically sensitive issues around. Obama has appointed Biden head of a taskforce to look for ways to avoid recurrences of last month’s Sandy Hook school killings. Biden, after six years of work, shepherded a gun control Bill through the Senate in 1994, and refused to yield to Republican pressure when an assault weapon ban was tacked on to it. He has already started pushing for the president’s other top legislative priority – comprehensive immigration reform.“In one sense, we have a long way to go, bringing 11 million Hispanics out of the shadows and into the light of day,” Biden told the Congressional Hispanic Caucus Institute this week. “What’s different today is that the rest of the nation, the rest of America, recognises it’s time. It’s your time.” The role Biden will play over the next year will be a chance for him to overcome perceptions that he is an “amiable buffoon”. Countering such perceptions will be important because Biden has not ruled out making another run for the presidency in 2016. Although he will be 74 by then, he is in good shape and works out regularly.

#### The nuclear industry has congress in its pocket – funding, speeches

Union of Concerned Scientists, ’10 (February 1, “Nuclear Industry Spent Hundreds of Millions of Dollars Over the Last Decade to Sell Public, Congress on New Reactors, New Investigation Finds” <http://www.ucsusa.org/news/media_alerts/nuclear-industry-spent-millions-to-sell-congress-on-new-reactors-0343.html>)

The nuclear industry claims that there is increased public support for nuclear power as a solution to climate change, and some members of Congress are arguing that massive incentives for new nuclear reactors are critical to passing a climate and energy bill. Today, the Obama administration is expected to propose tripling the amount of loan guarantees to the industry to $54 billion and there are proposals in Congress to add billions more through a new "clean" energy fund and other incentives to support nuclear power expansion. Where did all this support for new nuclear reactors come from? Let's follow the money. Growing support for new nuclear power comes after an extensive decade-long campaign in which companies and unions related to the industry have spent more than $650 million on lobbying and campaign contributions from 1999 through 2008, according to a new analysis by former Los Angeles Times reporter Judy Pasternak, now with the Investigative Reporting Workshop at American University. In the first three quarters of 2009 alone, the nuclear energy industry spent $84 million lobbying Congress. "In many ways, the nuclear power industry's efforts to win support are a textbook case of how the influence game is played in Washington," Pasternak reports. "Besides the money spent on lobbying and campaign contributions, the industry, led by the NEI [Nuclear Energy Institute], has created a network of allies who give speeches, quote one another approvingly and showcase one another on their Web sites. The effect is an echo chamber of support for nuclear power." Two of the industry's celebrity spokespeople, former EPA Administrator Christine Todd Whitman and former Greenpeace activist Patrick Moore, have been stumping around the country, writing op-eds, and appearing on TV to extoll the virtues of nuclear power as the co-directors of the Clean and Safe Energy Coalition, but they rarely, if ever, mention that the NEI created the coalition and is its sole funder.

#### Nuclear power is popular with policymakers and the public

Todd Whitman 2012 - CASEnergy Co-Chair, Former EPA Administrator and New Jersey Governor(August 12, Christine, “Nuclear Power Garners Bipartisan Support” <http://energy.nationaljournal.com/2012/08/finding-the-sweet-spot-biparti.php?comments=expandall#comments>)

It’s clear from the debate around the merits and drawbacks of various electricity and fuel sources that energy policy can be a highly polarizing topic. In fact, it’s arguable that there is no energy option that holds a truly bipartisan appeal: Every form of energy faces pockets of dissent. This makes crafting universally accepted energy policy particularly challenging. Fortunately, there are rare areas for bipartisan agreement among policymakers around specific energy policy issues that must be central to future investment in America’s energy portfolio. Policymakers agree that whatever sources we invest in, they must be sufficient both to meet growing energy demand and environmental requirements. They agree that the energy we invest in should support growth in American jobs and in the economy. They agree that our energy portfolio should be sustainable over time, aligned with our broader national goals. The energy policy that I’ve seen garner consistent support from the left and the right over the years is also one with which I’m deeply familiar. This policy involves building a diverse portfolio of low-carbon energy sources, featuring a renewed investment in nuclear energy. And it’s not just policymakers from both sides of the aisle who support nuclear energy – it’s everyday energy consumers as well. According to a Gallup poll conducted in March of this year, nearly 60 percent of Americans support the use of nuclear energy to meet our nation’s electricity needs, and a majority support expanding America’s use of nuclear power. Next-generation nuclear energy projects are underway in Georgia, South Carolina and Tennessee, thanks in part to steady popular support, as well as support from President Obama, bipartisan congressional leaders and other policymakers at the federal and state levels. An additional 10 combined construction and operating licenses for 16 plants are under review by the Nuclear Regulatory Commission. This support is founded in the fact that nuclear energy, safely managed, provides an efficient, reliable source of energy. In fact, nuclear power is the only baseload source of carbon-free electricity. It provides nearly two-thirds of the nation’s low-carbon electricity, and will continue to be an important source of energy well into the future given the advent of innovative large and small reactor designs. The use of nuclear energy prevents more than 613 million metric tons of carbon dioxide every year – as much CO2 as is emitted by every passenger car in America. Bipartisan support for nuclear energy also stems from the boost that it provides to local job markets and to local and state economies. As nuclear energy expands and as more than half of the industry workforce approaches retirement, the industry offers growing opportunities for well-paying careers. The industry already supports more than 100,000 jobs, and the combination of retirements and the construction of new facilities could create as many as 25,000 new jobs in the near term. What’s more, the construction of a nuclear facility spurs the creation of other local jobs in industries ranging from manufacturing to hospitality. The industry generates between $40 and $50 billion in revenue and electricity sales, or some $470 million in total economic output and $40 million in labor wages at each U.S. facility every year. That’s a powerful economic engine and a positive impact that leaders are embracing. As America refocuses on cleaner energy policies that help boost our economy, nuclear power is becoming a clear and critical part of a secure, sustainable energy portfolio. We need electricity and we want clean air; with nuclear energy we can have both. It’s a source of power that leaders on both sides of the aisle can support.

#### SMRs have bipartisan support – recent bills prove

Wheeler 2011 (March 10, Susan, “Nuclear Power Touted in Bipartisan Bill” <http://www.crapo.senate.gov/media/newsreleases/release_full.cfm?id=331802>)

Legislation requiring the U.S. Department of Energy to work more actively with the private sector on nuclear energy partnerships has been introduced in the U.S. Senate. Idaho Senators Mike Crapo and Jim Risch have co-sponsored the Nuclear Power 2021 Act. The bill would increase the number of small modular nuclear reactors available to produce clean, alternative energy. More than half of the development costs would be paid for by private investors. Other sponsors of the bill include Senate Energy and Natural Resources Committee Chairman Jeff Bingaman (D-New Mexico), Committee Ranking Member Lisa Murkowski (R-Alaska), and Senators Mary Landrieu (D-Louisiana), Mark Pryor (D-Arkansas) and Mark Udall (D-Colorado). “A growing, bipartisan group of Senators have sponsored this legislation, showing the recognition that nuclear power is receiving as we increase our alternative sources for new power,” Crapo said. “The Idaho National Lab, as the nation’s lead nuclear laboratory, is in a good position to assist with that expanded nuclear research and development.” “America’s need for electricity requires that we pursue clean nuclear energy that provides the needed base load power for our homes and businesses. These small modular reactors are a key part of ensuring our energy security,” said Risch. “Idaho’s history in nuclear technology and the INL’s position as the nation’s preeminent nuclear energy research lab makes us a natural leader in this public-private endeavor.” A similar bill passed out of the Senate Energy and Natural Resources Committee last session but Senate leadership did not bring it up for a vote by the full Senate.

#### Obama will have to work to get Hagel confirmed

Cillizza, 1/7 (Chris Cillizza and Aaron Blake, 1/7/2013, “President Obama picks a confirmation fight. Can he win it?” <http://www.washingtonpost.com/blogs/the-fix/wp/2013/01/07/president-obama-picks-a-confirmation-fight-can-he-win-it/>)

When President Obama formally nominates Chuck Hagel to be the next Secretary of Defense later today, he can be certain of one thing: The former Nebraska Republican Senator will face a major fight to win confirmation. In conversations with a handful of current and former Senate aides — of both parties — over the weekend, there was almost uniform agreement that Hagel faces a rocky road to confirmation although none were willing to predict that he won’t make the finish line. The focus at the moment is on the Republican opposition to Hagel, opposition built around not simply his policy stances on Iran and Iraq, but also on his decision to, in their eyes, abandon the GOP once he left office. “He basically doesn’t have a single Senate Republican friend who served with him,” said one senior GOP Senate aide granted anonymity to speak candidly. The source added that Hagel had not only given cover to Democrats on a number of high-profile issues but that he had also badly alienated his colleagues with his strong endorsement of former Democratic Sen. Bob Kerrey in the 2012 Nebraska Senate race. “Some Senate Republicans are still livid at his support for Bob Kerrey,” acknowledged a senior Democratic with long ties to the Senate. “I think that’s the real rub.” While the Republican opposition to Hagel has drawn most of the headlines to date, however, the real danger to Obama’s pick to lead the Pentagon is from within the President’s own party. Past failed nominees — both for Cabinet posts and Supreme Court — have largely been done in not by the political opposition but rather by their own side. (See Miers, Harriet.) And, while Hagel seemed to extinguish — or at least mitigate — a controversy over past comments about openly gay Ambassador James Hormel by issuing a full apology, his statements on Israel remain a major concern for Democrats, according to one veteran party aide in the Senate. Added the source: ”For these Democrats, the only reason to support Hagel is out of pure loyalty to the President. That is a major consideration, obviously, but Hagel will have some explaining to do on his past statements. A path certainly exists for him to be confirmed, but the administration can’t simply take it for granted that there are 50 Democratic votes for him. They will need to work it.” (If you need a gauge on whether Hagel is going to make it, keep an eye on Senator Chuck Schumer. Schumer has been lukewarm — at best — toward the prospect of Hagel at the Defense Department and the New York Senator is a major player and pivot point in this fight.)\