# 2AC

## Grid

#### Failing grid is inevitable from numerous threats. Montgomery 12 isolates several scenarios which make meltdowns likely and several days long. That’s Cappiello. This duration will cause nuclear reactors in the northeast to overheat and meltdown releasing radioactive clouds. That’s Wasserman.

## Ports

#### The ports are not being revitalized now per Davison, 12.

#### Two impacts-

#### Without restructuring the US will not be able to compete and food prices will rise because of faulty port facilities. That Marber and Doms. High food prices will ravage Chinese food supply per Carlson, and China will lash out and face economic collapse due to a starving population (Serewicz) causing nuclear war.

#### Insecure ports are vulnerable to terrorist attacks which are the “single most realistic proven threat vector” that’s Forbes 11. Terrorism causes lash out and nuclear extinction per Morgan, 9.

#### High food prices cause disease- malnutrition.

Stuckler 11

[Marc Suhrcke Norwich School of Medicine, University of East Anglia, David Stuckler- Harvard School of Public Health, Jonathan E. Suk- Future Threats and Determinants Section, Scientific Advice Unit, European Centre for Disease Prevention and Control, Monica Desai- London School of Hygiene and Tropical Medicine, Michaela Senek- Norwich School of Medicine, University of East Anglia, Martin McKee- London School of Hygiene and Tropical Medicine, Svetla Tsolova- (ECDC), Sanjay Basu- Department of Medicine, University of California San Francisco, Ibrahim Abubakar- Norwich School of Medicine, University of East Anglia, Paul Hunter- Norwich School of Medicine, University of East Anglia, Boika Rechel- Norwich School of Medicine, University of East Anglia, Jan C. Semenza- (ECDC), (2011) The Impact of Economic Crises on Communicable Disease Transmission and Control: A Systematic Review of the Evidence. PLoS ONE data base, \\wyo-bb]

Other factors may also reduce immunity during an economic downturn, but the links are indirect. There is some evidence linking stress to impaired immunological status, by virtue of the cortisol response, increasing susceptibility to certain infectious diseases, [49] [48] although responses to stress vary greatly between individuals [58]. Meanwhile, governments which do not provide food subsidies to indigent populations when faced with rising food prices risk impairing nutrition, a risk factor for several infectious diseases that appears to reflect weakening immunological defences against latent infections, for example, reactivation of tuberculosis [38].

#### Disease causes extinction.

Yu 9

(Victoria, Dartmouth Undergraduate Journal of Science, 5-22, <http://dujs.dartmouth.edu/spring-2009/human-extinction-the-uncertainty-of-our-fate>)

A pandemic will kill off all humans. In the past, humans have indeed fallen victim to viruses. Perhaps the best-known case was the bubonic plague that killed up to one third of the European population in the mid-14th century (7). While vaccines have been developed for the plague and some other infectious diseases, new viral strains are constantly emerging — a process that maintains the possibility of a pandemic-facilitated human extinction. Some surveyed students mentioned AIDS as a potential pandemic-causing virus. It is true that scientists have been unable thus far to find a sustainable cure for AIDS, mainly due to HIV’s rapid and constant evolution. Specifically, two factors account for the virus’s abnormally high mutation rate: 1. HIV’s use of reverse transcriptase, which does not have a proof-reading mechanism, and 2. the lack of an error-correction mechanism in HIV DNA polymerase (8). Luckily, though, there are certain characteristics of HIV that make it a poor candidate for a large-scale global infection: HIV can lie dormant in the human body for years without manifesting itself, and AIDS itself does not kill directly, but rather through the weakening of the immune system. However, for more easily transmitted viruses such as influenza, the evolution of new strains could prove far more consequential. The simultaneous occurrence of antigenic drift (point mutations that lead to new strains) and antigenic shift (the inter-species transfer of disease) in the influenza virus could produce a new version of influenza for which scientists may not immediately find a cure. Since influenza can spread quickly, this lag time could potentially lead to a “global influenza pandemic,” according to the Centers for Disease Control and Prevention (9). The most recent scare of this variety came in 1918 when bird flu managed to kill over 50 million people around the world in what is sometimes referred to as the Spanish flu pandemic. Perhaps even more frightening is the fact that only 25 mutations were required to convert the original viral strain — which could only infect birds — into a human-viable strain (10).

**Offshore wind would revitalize weak US ports and shipyards and create millions of sustainable jobs**

**DOE ‘11**

[U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Wind & Water Power Program U.S. Department of the Interior, Bureau of Ocean Energy Management, Regulation, and Enforcement, “A National Offshore Wind Strategy Creating an Offshore Wind Energy Industry in the United States” 2.7.2011 <http://www1.eere.energy.gov/wind/pdfs/national\_offshore\_wind\_strategy.pdf>//wyo-hdm]

**Deployment of wind energy along U.S. coasts would** also **trigger direct and indirect economic benefits. According to NREL analysis and extrapolation of European studies, offshore wind would create approximately 20.7 direct jobs per annual megawatt installed in U.S. waters** (W. Musial 2010). Installing 54 GW of offshore wind capacity in U.S. waters would create more than 43,000 permanent operations and maintenance (O&M) jobs and would require more than 1.1 million job‐years to manufacture and install the turbines (W. Musial 2010). **Many of these jobs would be located in economically depressed ports and shipyards, which could be revitalized as fabrication and staging areas for the manufacture, installation, and maintenance of offshore wind turbines. Offshore wind provides an opportunity for revitalization of U.S. ports and heavy industry facilities.** Due to the large scale of offshore wind turbine components, towers and foundation structures, it is generally advantageous to limit or eliminate overland transport from assembly and installation scenarios in order to maximize process efficiency and minimize logistics time and costs. In addition, **European experience has clearly indicated that it will be necessary to create a purpose‐built installation, operations, and maintenance** (IO&M**) infrastructure for offshore wind, including specialized vessels and port facilities**. To assist industry and regional port facilities in making informed decisions regarding design requirements for IO&M infrastructure, DOE will participate in collaborative studies of infrastructure needs and capabilities for the benefit of all national regions. A significant portion of the cost differential between land‐based and offshore wind energy systems lies in transport and installation requirements. European experience indicates that specialized wind system installation vessels, rather than adapted oil and gas vessels, will be required for cost‐effective, high‐ volume installation.

# Climate

#### Wind produces enough power to solve emissions, and does not affect the environment around them

Charles Q. Choi, 9/10

is a freelance science writer based in New York City who has written for The New York Times, Scientific American, Wired, Science, Nature, and many other news outlets. “Studies Show Wind Power's Massive Potential” <http://www.insidescience.org/?q=content/studies-show-wind-powers-massive-potential/782>, accessed 9/28/12,WYO/JF

There is enough energy for people to reap from the wind to meet all of the world's power demands without radically altering the planet's climate, according to two independent teams of scientists. Wind power is often touted as environmentally friendly, generating no pollutants. It is an increasingly popular source of renewable energy, with the United States aiming to produce 20 percent of its electricity by wind power by 2030. Still, there have been questions as to how much energy wind power can supply the world, and how green it actually is, given how it pulls energy from the atmosphere. To learn more, climate scientist Katherine Marvel at Lawrence Livermore National Laboratory, in Calif., and her colleagues developed a global climate model that analyzed how wind turbines would drag on the atmosphere to harvest energy from winds at the planet's surface and higher altitudes. Historically, people have built wind turbines on the ground and in the ocean, but research suggests kite-borne turbines could generate more power from steadier, faster high-altitude winds. Adding wind turbines of any kind slows winds, and Marvel and her colleagues found that adding more than a certain amount of turbines would no longer generate more electricity. Still, their simulations suggest that at least 400 terawatts -- or 400 trillion watts of power -- could be generated from surface winds, and more than 1,800 terawatts could be extracted from winds throughout the atmosphere. In comparison, people globally currently use about 18 terawatts of power. Simulating a century's worth of amped-up wind-energy production suggests that harvesting maximum power from these winds would have dramatic long-term effects on the climate, triggering major shifts in atmospheric circulation. "However, it's important to understand that these amounts are far, far bigger than current or projected global energy demand," Marvel said. In contrast, extracting enough wind energy to satisfy current global power demands would only have minimal climate effects, as long as wind turbines were spread out. Doing so might affect surface temperatures by about 0.1 degree Celsius and affect average precipitation by about 1 percent. Independent from Marvel's research, atmospheric scientist Mark Jacobson at Stanford University in Calif. and wind power researcher Cristina Archer at the University of Delaware, in Newark, used a 3-D computer model that analyzed interactions between the atmosphere, land and oceans on a global scale, including factors such as chemistry and water-vapor content. They estimated the amount of energy turbines with hubs located a conventional height of 330 feet off the ground could extract, based on manufacturer data on how turbines convert wind to power. They also simulated turbines 6 miles above the ground, the typical altitude of the jet stream. They found the amount of wind power available at the height of most modern wind turbines before the point of diminishing returns is about 80 terawatts on all continents minus Antarctica and near their shores, and more than 250 terawatts if wind turbines could be placed across the entire surface of the planet, including the oceans. At heights of the jet stream, about 380 terawatts appears available. The numbers of both teams are not exactly comparable, in part because Jacobson and Archer looked at extracting energy at specific heights in the atmosphere, whereas Marvel and her colleagues looked more at the atmosphere as a whole. "The two teams obtained similar conclusions using two different approaches, which gives us even more confidence about our results," Archer said. More realistically, Jacobson and Archer found that 4 million 5-megawatt turbines operating on the planet's surface could supply as much as 7.5 terawatts of power without significant negative impacts on the climate. This is more than half the world's power demands in 2030, optimistically assuming that all energy is converted to clean energy by then. The researchers suggest half these turbines be placed in the ocean, while the others would require a little more than 0.5 percent of the Earth's land surface -- about half the area of Alaska. Virtually none of this area would need to be used solely for wind, but could for instance also serve as farmland, ranchland or wildlife preserves. Spreading out these ground-based turbines in windy locations worldwide such as the American plains and the Sahara would increase efficiency by keeping them from stealing wind energy from each other, and would reduce their overall environmental impact. Both these models assume wind turbines can be installed anywhere and everywhere, without regard to social, environmental, or financial considerations, such as how much 4 million wind turbines might cost, or how so many turbines might impact migrating birds. While these researchers focused on the global climate effects of very large-scale wind power, more study is needed. Archer said the findings suggest that even heavy use of wind power is likely a smart, safe and clean way to generate energy. "There is still a lot of interesting work to be done on local and regional climatic consequences of wind," Marvel said. Marvel and her colleagues detailed their findings online Sept. 9 in the [journal Nature Climate Change](http://bit.ly/TK3vrc). Jacobson and Archer published their research online Sept. 10 in the [journal Proceedings of the National Academy of Sciences](http://bit.ly/PjiHKM). Both teams will present their work at the Airborne Wind Energy Conference on Sept. 11 and 12 in Hampton, Va.

#### Doesn’t cause spot warming—the researchers they cite say it’s just a redistribution of energy and a misinterpretation of the data

Marchetti 12

[Marchetti, Nino: editor-in-chief for EarthTechling. "Wind Farms, Global Warming Connection Lukewarm At Best." *EarthTechling*. EarthTechling, 30 Apr 2012. Web. 24 Sep 2012. <http://www.earthtechling.com/2012/04/wind-farms-global-warming-connection-luke-warm-at-best/>. //Wyo-BF]

A study released yesterday by researchers finds that large wind farms may impact local temperatures, noting a night warming effect in certain areas in Texas caused by “the turbulence in turbine wakes acting like fans to pull down warmer near surface air from higher altitudes at night.” As Natural Resources Defense Council already pointed out, select media outlets covering this study have generated bad headlines which conflate “small-scale, local impacts on nighttime land surface temperatures and global climate disruption.” To offer some clarity on the subject, the researchers behind the original study have released a detailed Q&A addressing concerns. As Media Matters points out in this Q&A, the scientists basically debunk what is termed “misleading” coverage of the study. Other media outlets, such as Christian Science Monitor and Washington Post, also call into question how the study is being characterized. To give you insight into the researchers’ own interpretation of their study, we’ve provided the entire Q&A below for your consideration. But here is the net take away: Very likely, the wind turbines do not create a net warming of the air and instead only redistribute the air’s heat from above to near the surface (that is, the turbine itself does not generate any heat). This is fundamentally different from the large-scale warming effect caused by increasing atmospheric concentrations of greenhouse gases. What is the major finding of this research? This study presents the first observational evidence of wind farm impacts on land surface temperature with spatial detail using satellite data. What is land surface temperature? Land surface temperature is how hot the “surface” of the Earth would feel to the touch in a particular location. From a satellite’s point of view, the “surface” is whatever it sees when it looks through the atmosphere to the ground. It could be snow and ice, the grass on a lawn, the roof of a building, or the leaves in the canopy of a forest. Thus, land surface temperature is not the same as the air temperature that is included in the daily weather report. Note that the land surface temperature has a larger day-night variation than the surface air temperature. Why do operating wind turbines enhance turbulence and vertical mixing? Turbulence is small-scale, chaotic almost-random air movement. The spinning rotors of the wind turbines generate turbulence in their wakes – just like the wake from a boat in the water. Wakes from wind turbines can spread a long distance downwind of the turbines. Due to the turbulent nature of the wakes, vertical mixing of lower and upper level air also increases in regions downwind of wind farms. Why do the operating wind turbines warm nighttime temperature? This warming effect is most likely caused by the turbulence in turbine wakes acting like fans to pull down warmer near surface air from higher altitudes at night. Typically nighttime has a stable atmosphere with a warm layer overlying a cool layer. Enhanced vertical mixing mixes warm air down and cold air up, leading to a warming near the surface at night. Daytime often has an unstable atmosphere with cool air lying over warmer air. Turbulent wakes mix cool air down and warm air up, producing a cooling near the surface during the day. However, daytime mixing is already very large due to solar heating. Hence, the turbine-enhanced turbulent mixing may play a smaller role during the daytime. Why do you attribute the warming primarily to wind farms? Because (a) the spatial pattern of the warming resembles the geographic distribution of wind 2 turbines and (b) the year-to-year land surface temperature over wind farms shows a persistent upward trend from 2003 to 2011, consistent with the increasing number of operational wind turbines with time. FAA data shows that the number of wind turbines over the study region has gone up from 111 in 2003 to 2358 in 2011. How to interpret the magnitude of the estimated warming effect? We found a nighttime warming effect over wind farms of up to 0.72 °C per decade relative to nearby non-wind farm regions for the nine-year period during which data was collected. It is important to keep the following points in mind when interpreting our results. First, the land surface temperature measures the temperature of the Earth’s surface, which has a stronger day-night variation than the surface air temperature from daily weather reports. Therefore, the impacts of wind farms on the surface air temperature should be within the nearsurface boundary layer and smaller than the land surface temperature signal presented in this paper. Second, as this analysis is from a short period over a region with rapid growth of wind farms, we expect our estimates to give higher values than those estimated in other locations and over longer periods. Third, we express the warming effect as a linear trend in degrees Celsius per decade units. This is just one simple way to quantify the wind farm impacts while reducing the year-to-year data noise. The estimated warming trend only applies to the study region and to the study period, and thus should not be extrapolated linearly into other regions (e.g., globally) or over longer periods (e.g., for another 20 years). For a given wind farm, the warming effect would likely reach a limit rather than continue to increase if no new wind turbines are added. Considering the complexity of the issue, our results should be interpreted as illustrative rather than definitive. Fourth, satellite data do contain errors and noise due to cloud contamination and imperfection of retrieval algorithms. Uncertainties also exist in locating wind turbines as well as their operating times. In addition, other factors may also modify local land surface temperature. Considering the complexity of the issue, our results should be interpreted as illustrative rather than definitive. Finally, compared to impacts of other human-made land use changes, the estimated warming over the wind farms is small. The “urban heat-island” effect, for example, in Austin TX or phoenix in AZ, could be several degrees °C warmer than the surrounding less developed areas. Overall, the warming effect reported in this study is local and is small compared to the strong background year-to-year land surface temperature changes. Very likely, the wind turbines do not create a net warming of the air and instead only re-distribute the air’s heat near the surface (the turbine itself does not generate any heat), which is fundamentally different from the large-scale warming effect caused by increasing atmospheric concentrations of greenhouse gases. Possible impacts on weather and climate? Wind energy is among the world’s fastest growing sources of energy. The U.S. wind industry has experienced a remarkably rapid expansion of capacity in recent years. While converting wind’s kinetic energy into electricity, wind turbines modify surface-atmosphere exchanges and transfer of energy, momentum, mass and moisture within the atmosphere. These changes, if spatially large enough, might have noticeable impacts on local to regional weather and climate. Given the present installed capacity and the projected growth in installation of wind farms across the world, this study draws attention to an important scientific issue that requires further investigation. We need to better understand the system with observations and better describe and model the complex processes involved to predict how wind farms may affect future weather and climate.

#### Wind energy will be able to produce massive amounts of power, and not harm the environment

Ros Donald, 9/11

“New models suggest wind power won’t cause global warming” <http://www.carbonbrief.org/blog/2012/09/new-proof-that-wind-turbines-dont-cause-global-warming>, accessed 9/28/12,WYO/JF

The first [piece of research](http://www.nature.com/nclimate/journal/vaop/ncurrent/full/nclimate1683.html), released in the journal Nature Climate Change on Sunday, finds that wind power on the scale needed to meet global power demand would only have a tiny effect on the climate. According to a team led by Ken Caldeira from the Carnegie Institution for Science, harvesting wind power could have substantial climate effects - but only if it's deployed on a truly massive scale that far exceeds current global energy demand. But even at the (relatively large) level of meeting current global energy demand, the paper says these effects would be small, as long as turbines are spread out evenly. Meeting global demand with wind power might affect surface temperatures by around 0.1 degree Celsius, the research estimates, and affect precipitation by around one per cent, although it's not clear to us whether this means up or down. The paper as a whole looked at the potential for wind to produce large volumes of power. It concludes that winds at high altitudes could provide more than 1,800 terawatts of power, while surface winds have the potential to produce more than 400 terawatts. If this seems like a lot - the world currently uses about 18 terawatts of power - it's important to be clear that this is an examination of the geophysical limitations to wind power extraction, and doesn't consider technical or economic factors. As Caldeira points out: "Looking at the big picture, it is more likely that economic, technological or political factors will determine the growth of wind power around the world, rather than geophysical limitations."

# 2AC A2 Radars

#### No risk of radar disruption. MIT algorithms fixed it.

Lott, 11

[Maxim- Correspondent. Quoting Dave Belote, the director of the Department of Defense’s Energy Siting Clearinghous. “Wind Farms Disrupting Radar, Scientists Say”, November 5, 2011. http://www.foxnews.com/scitech/2011/11/05/wind-farms-disrupting-radar-scientists-say/#ixzz27K4C1R6s//wyokb]

“The Department of Defense's earlier decision threatened to drop a bomb on job creation in Central Oregon,” democratic Senator Ron Wyden [noted in a press release](http://wyden.senate.gov/newsroom/press/release/?id=33be51a2-1832-4da9-aa35-6287f2ae8700). Beloite told FoxNews.com that the project was given the green light by the military only after scientists at MIT’s Lincoln Laboratory assured the Department of Defense “that there were algorithms and processors they could design for not too much money that would mitigate the problem.” Beloite said that the MIT technology has proven successful in the last few months. "[The problem] has been addressed. And I have a letter from the deputy director of operations from U.S. [NORAD](http://www.foxnews.com/topics/politics/norad.htm#r_src=ramp) that says 'step one of the two-step fix worked so well that we recommend we don't spend any more money on step two.'"

#### No Radar interference- New blades solve.

Cameron, 11

["Stealth Blades" Get Turbines Under the Radar By Alasdair Cameron, Contributor, November 23, 2011 <http://www.renewableenergyworld.com/rea/news/article/2011/11/stealth-blades-get-turbines-under-the-radar>//wyokb]

At a recent conference, Qinetiq presented some of the mechanisms they have been exploring with their experimental blades. To begin with, they discovered that not all parts of the blade need to be treated with RAM, and some are more crucial than others — particularly the leading and trailing edges, which may be coated in one or more layers of material designed to reduce the radar signal. Along with coatings, **additional solutions have included incorporating RAM into the blade itself by substituting thin layers of radar-absorbent materials for sections of glass composites**. Another option involves using **layers of honeycomb foam inside the blade** to **help dampen the reflected signal**. **The nacelle and tower can also be coated in RAM, or shaped to ensure that they present no flat surface to the radar waves, thereby reducing their RCS.** The key, as with the blades, is to find a system that can be easily incorporated into existing manufacturing processes at a reasonable cost without significantly undermining the performance of the wind turbine system.

#### New 3D radar solves radar issues.

Rice, 11

[“3D Radar Tech to Improve Wind Farms Worldwide” Rebecca Kutzer-Rice | Date: 11-02-11, <http://www.smartertechnology.com/c/a/Optimized-Systems/3D-Radar-Tech-to-Improve-Wind-Farms-Worldwide/>//wyokb]

Aveillant’s proprietary 3D holographic radar recognizes the presence and location of nearby aircrafts to safely prevent collisions and other problems, including hindrance of air-defense effectiveness. The technology is a result of collaboration between various industry experts, including wind-farm developers and airport operators. “The unique radar offering is a result of our extensive work with aviation and wind energy stakeholders to create a technical solution which fully meets their requirements,” Ray Edgson, ventures director at Cambridge Consultants, said in a statement. While current solutions to prevent radar interference with aviation systems sacrifice sensitivity and accuracy, the 3D holographic radar meets requirements set by the U.K.’s Ministry of Defense, and is cost-effective enough for even small wind farms to use. In 2010, the U.K. Government’s Aviation Management Board selected Aveillant’s technology as a leading radar solution.

**Extend the LEED ev, offshore wind key to revitalizing the steel industry, and**

#### The steel industry is key to US hegemony and economic primacy- without domestic growth the industry will collapse

AISI ‘04

[American Iron and Steel Institute, “A Strong U.S. Steel Industry: Critical to Protecting U.S. Infrastructure, Homeland Security and Economic Security,” 9.2.2004. <www.steel.org/AM/Template.cfm?Section=Trade2&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=18271>//wyo-hdm]

"Steel is an important jobs issue; it is also an important national security issue. I am here to trumpet one of the great values of America. That's the enterprise of the American worker, the hardworking American citizens who make this economy go. And those are the steelworkers of America. I appreciate what you do for our country." President George W. Bush, August 26, 2001The President and many other U.S. government leaders recognize that steel and national security go hand in hand. The North American Security and Prosperity Partnership (SPP), in the first Ministerial “Report to Leaders” (June 2005), identifies steel as a “strategic” industry. Given the tragic events of September 11, 2001 and the subsequent global war on terror, the importance of a strong and viable American steel industry to U.S. national infrastructure, homeland security and economic security cannot be overstated. It is vital to U.S. national economic security and to our homeland security that America does not become dangerously dependent on offshore sources of supply for: The steel that goes into our energy infrastructure such as petroleum refineries, oil and gas pipelines, storage tanks, electricity power generating plants, electric power transmission towers and utility distribution poles ; The steel that goes into our transportation security infrastructure such as highways, bridges, railroads, mass transit systems, airports, seaports and navigation systems; The steel that goes into our health and public safety infrastructure such as dams and reservoirs, waste and sewage treatment facilities, the public water supply system and, increasingly, residential construction; The steel that goes into our commercial, industrial and institutional complexes such as manufacturing plants, schools, commercial buildings, chemical processing plants, hospitals, retail stores, hotels, houses of worship and government buildings. In the above context, this paper provides a summary and enhancement of a December 2001 report prepared by America’s steel-producing community, entitled “A Strong U.S. Steel Industry: Critical to National Defense and Economic Security.” It is submitted here in connection with the revised draft National Infrastructure Protection Plan (NIPP). This paper covers: the role played by steel in all its forms in homeland security and economic security; the nation’s increased need for steel to bolster our homeland security and economic security; and the role that domestically produced steel must play to meet our overall security objectives. In the wake of September 11, we are justifiably concerned about the security of the physical underpinnings of our society, especially its essential infrastructure. Virtually all elements of this infrastructure -- energy, transportation, health, public safety and buildings -are dependent upon steel for their construction and security. The importance of a strong and viable domestic steel industry to U.S. national economic security and to our homeland security is clear. The September 11 attacks on the United States illustrate that (1) steel will be needed to “harden” existing U.S. infrastructure and installations and (2) a strong and viable domestic steel industry will be needed to provide immediate steel deliveries when and where required. We need only consider the potential difficulties that the U.S. would face in defending, maintaining and rebuilding vital infrastructure in an environment where our nation is largely dependent upon offshore sources for steel. If the U.S. were to become even more dangerously dependent upon offshore sources of steel, we would experience sharply reduced security preparedness in the face of: Highly variable, and certainly higher, costs; Uncertain supply, impacted by unsettled foreign economies; Quality, design and performance problems; Inventory problems, long lead times and extended construction schedules. In this submission, we will examine U.S. infrastructure, segment by segment, all of which are highly steel-intensive. We will cite specific examples of our infrastructure need, the importance of steel as a material to this need and the importance of a strong and viable domestic steel industry to meet this need. Even prior to September 11, the American Society of Civil Engineers reported that $1.3 trillion would be needed through 2005 alone for major infrastructure improvements in The United States. The situation has likely worsened since publication of the figures below. According to authoritative government and consuming industry studies:25 percent of U.S. bridges are currently either structural deficient or obsolete, so roughly 150,000 of our nation’s bridges will need to be modernized and rebuilt;27 percent of America’s highways are judged to be poor-to-mediocre, so more than a quarter of the U.S. highway system will need to be rebuilt and upgraded;21 percent of U.S. rail track is rated as “less than good,” so more than a fifth of our nation’s railway system will need to be better maintained or rebuilt; 30 percent of U.S. airport runways are classified as “needing repair,” so nearly a third of our nation’s airport runways will require upgrading. Our country depends upon a healthy American steel industry to meet these and other growing U.S. demands for steel-intensive infrastructure. Engineers and contractors on sophisticated infrastructure projects require an uninterrupted supply of quality steel that they can trust to meet the performance characteristics of their project’s design, delivered on time and at a competitive cost. U.S. national economic security requires a strong and viable domestic steel industry to meet all these criteria on a consistent plate steel in wide and very heavy gauges. Prompt and effective maintenance and restoration of pipelines are vital to our national energy security infrastructure and to our national economy Electric power generation is an engine for our economy. Steel is not only present in the structures, but in the huge generators, which use large quantities of sophisticated electrical lamination steel sheet, and in the boilers, pressure vessels and pipe that is needed to produce basis.

## Climate Change

#### Don’t buy their wind pollution claims- these are just claims from gas lobbyists.

Boone, 10

“OVERBLOWN: Windpower on the Firing Line (Part I)”, by Jon Boone

September 13, 2010 <http://www.masterresource.org/2010/09/windpower-overblown-part-1///uwyokb>]

Instead, AWEA spokesman Michael Goggin penned a stern riposte, which alleged that Bryce and others skeptical about the efficacy of wind technology were “lobbyists” for the fossil fuel industry, spreading lies “to avoid losing market share to wind energy,” and compared Bryce and a range of people and organizations to the groups and pundits from the tobacco industry who once told Congress there was no causal link between cigarettes and cancer.

### Condo

**Conditionality is bad:**

**Time Skew: allows them to neutralize large chunks of 2ac time, hurting 1AR strat. The 2AC matters most because it puts out all the arguments that the aff can go.**

**Decrease Education: multiple worlds cause muddled debates that preclude consistency of education.**

**Voting issue: for ground, fairness, and education.**

## General K Frontline 2AC

First, Our Interpretation: The resolution asks the question of desirability of USFG action. The Role of ballot is to say yes or no to the action and outcomes of the plan.

Second, reasons to prefer:

A. Aff Choice, any other framework or role of the ballot moots 9 minutes of the 1ac

B. It is predictable, the resolution demands USFG action.

C. It is fair, Weigh Aff Impacts and the method of the Affirmative versus the K, it’s the only way to test competition and determine the desirability of one strategy over another

Finally, It is a voter for competitive equity—prefer our interpretation, it allows both teams to compete, other roles of the ballot are arbitrary and self-serving

#### Aff outweighs and turns the K because

* Ports
* Grid

#### Extinction of the species is the most horrible impact imaginable, putting rights first is putting a part of society before the whole

**Schell 1982**

(Jonathan, Professor at Wesleyan University, *The Fate of the Earth*, pages 136-137 uw//wej)

Implicit in everything that I have said so far about the nuclear predicament there has been a perplexity that I would now like to take up explicitly, for it leads, I believe, into the very heart of our response-or, rather, our lack of response-to the predicament. I have pointed out that **our species is the most important of all the things that,** as inhabitants of a common world, **we inherit from the past generations**, but it does not go far enough to point out this superior importance, as though in making our decision about extinction we were being asked to choose between, say, liberty, on the one hand, and the survival of the species, on the other. For **the species not only overarches but contains all the benefits of life in the common world, and to speak of sacrificing the species for the sake of one of these benefits involves one in the absurdity of wanting to destroy something in order to preserve one of its parts, as if one were to burn down a house in an attempt to redecorate the living room,** or to kill someone to improve his character. ,but even to point out this absurdity fails to take the full measure of the peril of extinction, for mankind is not some invaluable object that lies outside us and that we must protect so that we can go on benefiting from it; rather, it is we ourselves, without whom everything there is loses its value. To say this is another way of saying that extinction is unique not because it destroys mankind as an object but because it destroys mankind as the source of all possible human subjects, and this, in turn, is another way of saying that extinction is a second death, for one's own individual death is the end not of any object in life but of the subject that experiences all objects. Death, however, places the mind in a quandary. One of-the confounding characteristics of death-"tomorrow's zero," in Dostoevski's phrase-is that, precisely because it removes the person himself rather than something in his life, it seems to offer the mind nothing to take hold of. One even feels it inappropriate, in a way, to try to speak "about" death at all, as. though death were a thing situated somewhere outside us and available for objective inspection, when the fact is that it is within us-is, indeed, an essential part of what we are. It would be more appropriate, perhaps, to say that death, as a fundamental element of our being, "thinks" in us and through us about whatever we think about, coloring our thoughts and moods with its presence throughout our lives.

#### Utility calculus allows action, moral dogmatism freezes us into inaction

**Smart, 1973**

 (J.J.C prof. of philosophy, Australian riatibual university. Utilitarianism: For and Against uw//wej)

lf we are able to take account of probabilities in our ordinary prudential decisions it seems idle to say that in the field of ethics, the field of our universal and humane attitudes, we cannot do the same thing, but must rely on some dogmatic morality, in short on some set of rules or rigid criteria, Maybe sometimes we just will be unable to say whether we prefer for humanity an improbable great advantage or a probable small advantage, and in these cases perhaps we shall have to toss a penny to decide what to do. Maybe we have not any precise methods for deciding what to do, but then our imprecise methods must just serve their turn. We need not on that account be driven into authoritarianism, dogmatism or romanticism.

#### Scenario planning is possible in a catastrophe-ridden world—it’s vital to make predictions about the future.

Kurasawa, 04

 (Professor of Sociology, York University of Toronto, Fuyuki, Constellations Volume 11, No 4, 2004).

Independently of this contractualist justification, global civil society actors are putting forth a number of arguments countering temporal myopia on rational grounds. They make the case that no generation, and no part of the world, is immune from catastrophe. Complacency and parochialism are deeply flawed in that even if we earn a temporary reprieve, our children and grandchildren will likely not be so fortunate unless steps are taken today. Similarly, though it might be possible to minimize or contain the risks and harms of actions to faraway places over the short-term, parrying the eventual blowback or spillover effect is improbable. In fact, as I argued in the previous section, all but the smallest and most isolated of crises are rapidly becoming globalized due to the existence of transnational circuits of ideas, images, people, and commodities. Regardless of where they live, our descendants will increasingly be subjected to the impact of environmental degradation, the spread of epidemics, gross North-South socioeconomic inequalities, refugee flows, civil wars, and genocides. What may have previously appeared to be temporally and spatially remote risks are ‘coming home to roost’ in ever faster cycles. In a word, then, procrastination makes little sense for three principal reasons: it exponentially raises the costs of eventual future action; it reduces preventive options; and it erodes their effectiveness. With the foreclosing of long-range alternatives, later generations may be left with a single course of action, namely, that of merely reacting to large-scale emergencies as they arise. We need only think of how it gradually becomes more difficult to control climate change, let alone reverse it, or to halt mass atrocities once they are underway. Preventive foresight is grounded in the opposite logic, whereby the decision to work through perils today greatly enhances both the subsequent room for maneuver and the chances of success. Humanitarian, environmental, and techno-scientific activists have convincingly shown that we cannot afford not to engage in preventive labor. Moreover, I would contend that farsighted cosmopolitanism is not as remote or idealistic a prospect as it appears to some, for as Falk writes, “[g]lobal justice between temporal communities, however, actually seems to be increasing, as evidenced by various expressions of greater sensitivity to past injustices and future dangers.”36 Global civil society may well be helping a new generational self-conception take root, according to which we view ourselves as the provisional caretakers of our planetary commons. Out of our sense of responsibility for the well-being of those who will follow us, we come to be more concerned about the here and now.

#### Vauge alt theory:

#### Their alternative is vague.

#### -They cannot articulate the specific outcome of it.

#### Without a solid alternative the neg can shift their advocacy. This creates an unfair strategy skew because the neg can just shift out of any offense the aff has. This justifies abusive permutations.

#### Vague alts also destroy aff ground. We can’t get specific dis adds to the alt when we don’t even know what the alt does. This forces us to go for generic defense against the alt destroying topic specific education. This is bad for debate.

#### The round has already been skewed from the 1NC. The only way to fix the harms the vague alt has created in the round is to reject the team.

#### And

Perm do both

Perm do the plan and then the alternative

Perm do the alt and then the plan,

#### Their ontology first args are tautologies that stifle effective politics

Graham 2k -- Graduate School of Management, Queensland (P, Heidegger’s Hippies, http://www.philgraham.net/HH\_conf.pdf)

To state their positions more succinctly: ‘Heraclitus maintained that everything changes: Parmenides retorted that nothing changes’ (Russell 1946: 66). Between them, they delineated the dialectical extremes within which the “problem of the subject” has become manifest: in the extremes of questions about ontology, the nature of “Being”, or existence, or ‘Existenz’ (Adorno 1973: 110-25). Historically, such arguments tend towards internalist hocus pocus:

The popular success of ontology feeds on an illusion: that the state of the intentio recta might simply be chosen by a consciousness full of nominalist and subjective sediments, a consciousness which self-reflection alone has made what it is. But Heidegger, of course, saw through this illusion … beyond subject and object, beyond concept and entity. Being is the supreme concept –for on the lips of him who says “Being” is the word, not Being itself –and yet it is said to be privileged above all conceptuality, by virtue of moments which the thinker thinks along with the word “Being” and which the abstractly obtained significative unity of the concept does not exhaust. (Adorno 1973: 69)

Adorno’s (1973) thoroughgoing critique of Heidegger’s ontological metaphysics plays itself out back and forth through the Heideggerian concept of a universalised identity –an essentialist, universalised being and becoming of consciousness, elided from the constraints of the social world. Adorno’s argument can be summed up thus: there can be no universal theory of “being” in and of itself because what such a theory posits is, precisely, non-identity. It obscures the role of the social and promotes a specific kind of politics –identity politics (cf. also Kennedy 1998):

Devoid of its otherness, of what it renders extraneous, an existence which thus proclaims itself the criterion of thought will validate its decrees in authoritarian style, as in political practice a dictator validates the ideology of the day. The reduction of thought to the thinkers halts the progress of thought; it brings to a standstill would thought would need to be thought, and what subjectivity would need to live in. As the solid ground of truth, subjectivity is reified … Thinking becomes what the thinker has been from the start. It becomes tautology, a regressive form of consciousness. (Adorno 1973: 128).

Identity politics - the ontological imperative - is inherently authoritarian precisely because it promotes regression, internalism, subjectivism, and, most importantly, because it negates the role of society. It is simplistic because it focuses on the thingliness of people: race, gender, ethnicity. It tries to resolve the tension of the social-individual by smashing the problem into two irreconcilable parts. Identity politics’ current popularity in sociological thought, most wellevidenced by its use and popularity in “Third Way” politics, can be traced back to a cohort I have called Heidegger’s Hippies –the failed, half-hearted, would-be “revolutionaries” of the 60s, an incoherent collection of middle-class, neo-liberal malcontents who got caught up in their own hyperbole, and who are now the administrators of a ‘totally administered’ society in which hyperbole has become both lingua franca and world currency (Adorno 1964/1973 1973).

#### Experts are critical—they have extensive knowledge of primary and secondary works in their field, and the capacity to correctly apply that information to new situations

Goldman, 2001

[Alvin, University of Arizona, “Experts: Which ones should you trust?” *Philosophy and Phenomenological Research*, 63.1, 85-110, Online, <http://fas-philosophy.rutgers.edu/goldman/SeminarFall2007/October%2031st/Goldman%20-%20Experts%20Which%20Ones%20Should%20You%20Trust.pdf>] /Wyo-MB

Before addressing this question, we should say more about the nature of expertise and the sorts of experts we are concerned with here. Some kinds of experts a r e unusually accomplished at certain skills, including violinists, billiards players, textile designers, and s o forth. These are not the kinds of experts with which epistemology is most naturally concerned. For epistemological purposes we shall mainly focus on cognitive or intellectual experts: people who have (or claim to have) a superior quantity or level of knowledge in s ome domain and an ability to generate new knowledge in answer to questions within the domain. Admittedly, there are elements of skill or know-how in intellectual matters too, so the boundary between skill expertise and cognitive expertise is not a sharp one. Nonetheless, I shall try to work on only one side of this rough divide, the intellectual side. How shall we define expertise in the cognitive sense? What distinguishes an expert from a layperson, in a given cognitive domain? I'll begin by specifying an objective sense of expertise, what it is to be an expert, not what it is to have a reputation for expertise. Once the objective sense is specified, the reputational sense readily follows: a reputational expert is someone widely believed to be an expert (in the objective sense), whether or not he really is one. Turning to objective expertise, then, I first propose that cognitive expertise be defined in "veritistic" (truth-linked) terms. As a first pass, experts in a given domain (the E-domain) have more beliefs (or high degrees of belief) in true propositions and/or fewer beliefs in false propositions within that domain than most people do (or better: than the vast majority of people do). According to this proposal, expertise is largely a comparative matter. However, I do not think it is wholly comparative. If the vast majority of people are full of false beliefs in a domain and Jones exceeds them slightly by not succumbing t o a few falsehoods that a r e widely shared, that still d o e s not ma k e him an "expert" (from a God's-eye point of view). To qualify as a cognitive expert, a person must possess a substantial body of truths in the target domain. Being an expert is not simply a matter of veritistic superiority to most of the community. Some non-comparative threshold of veritistic attainment must be reached, though there is great vagueness in setting this threshold. Expertise is not all a matter of possessing accurate information. It includes a capacity or disposition to deploy or exploit this fund of information to form beliefs in true answers to new questions that may be posed in the domain. This arises from some set of skills or techniques that constitute part of what it is to be an expert. An expert has the (cognitive) know-how, when presented with a new question in the domain, to go to the right sectors of his information-bank and perform appropriate operations on this information; or to deploy some external apparatus or data-banks to disclose relevant material. So expertise features a propensity element as well as an element of actual attainment. A third possible feature of expertise may require a little modification in what we said earlier. To discuss this feature, let us distinguish the primary and secondary questions in a domain. Primary questions are the principal questions of interest to the researchers or students of the subject-matter. Secondary questions concern the existing evidence or arguments that bear on the primary questions, and the assessments of the evidence made by prominent researchers. In general, an expert in a field is someone who has (comparatively) extensive knowledge (in the weak sense of knowledge, i.e., true belief) of the state of the evidence, and knowledge of the opinions and reactions to that evidence by prominent workers in the field. In the central sense of "expert" (a strong sense), an expert is someone with an unusually extensive body of knowledge on both primary and secondary questions in the domain. However, there may also be a weak sense of "expert", in which it includes someone who merely has extensive knowledge on the secondary questions in the domain. Consider two people with strongly divergent views on the primary questions in the domain, so that one of them is largely right and the other is largely wrong. By the original, strong criterion, the one who is largely wrong would not qualify as an expert. People might disagree with this as the final word on the matter. They might hold that anyone with a thorough knowledge of the existing evidence and the differing views held by the workers in the field deserves to be called an expert. I concede this by acknowledging the weak sense of "expert". Applying what has been said above, we can say that an expert (in the strong sense) in domain D is someone who possesses an extensive fund of knowledge (true belief) and a set of skills or methods for apt and successful deployment of this knowledge to new questions in the domain. Anyone purporting to be a (cognitive) expert in a given domain will claim to have such a fund and set of methods, and will claim to have true answers to the question ( ~ ) under dispute because he has applied his fund and his methods to the question(s). The task for the layperson who is consulting putative experts, and who hopes thereby to learn a true answer to the target question, is to decide who has superior expertise, or who has better deployed his expertise to the question at hand. T h e novicet2-experts problem is whether a layperson can justifiably choose one putative expert as more credible or trustworthy than the other with respect to the question at hand, and what might be the epistemic basis for such a choice ?

#### Focusing on the metaphysics of climate destroys progressive actions to solve the problem---technical fixes are key

Hayward 6—Senior Fellow, Pacific Research Institute for Public Policy (Steven, The Fate of the Earth in the Balance, http://www.aei.org/article/society-and-culture/the-fate-of-the-earth-in-the-balance/)

This small example of environmental atavism reveals a more fundamental aspect of the public discourse about climate change. At the core of environmentalist animus against nuclear power is a categorical suspicion about technology itself, which is connected to a larger philosophical pessimism about human civilization and man’s supposed separation or alienation from nature. We have seen this style of argument during the long controversy over the arms race in the late stages of the Cold War, during which the immense political and technical aspects of the problem were, for a certain cast of mind, entirely subsumed beneath a more general critique of how the arms race was merely symptomatic of a larger crisis of civilization. Unless this larger crisis was addressed, it was suggested, there would be no hope the arms race could be solved.¶ It was not but twenty years ago that the large nuclear weapons arsenals of the superpowers threatened the instantaneous destruction of civilization and perhaps human life itself. Today, climate change is said to threaten the same things, only more slowly. It is remarkable how similarly the leading advocates for these two problems understand and conceptualize them. In the case of both the arms race then and climate change today, we are told that the issue is ultimately philosophical in nature, and that wholesale changes in our philosophical perspective must necessarily precede political and policy remedies to the problem. Should this perspective be taken seriously? What can it really mean?¶ The Fate of the Earth in the Balance¶ The peculiarity of this approach to major global problems is best seen by comparing the two leading popular books on each issue, Jonathan Schell’s 1982 bestseller The Fate of the Earth, and Al Gore’s 1991 bestseller Earth in the Balance (whose main arguments reappear in truncated form in An Inconvenient Truth). It is not just the titles that are strikingly similar; a close reading reveals the two books to be identical in their overarching philosophy.[5] In both, mankind is poised on the abyss, facing, in Gore’s words, “the most serious threat that we have ever faced,”[6] or “the nearness of extinction,”[7] to use only one of Schell’s many apocalyptic formulations. (An index entry--“despair; see also futility”[8]--conveys the mood better than any quotation from the main text.) In fact, if one substitutes “global warming” for “nuclear weapons” in the text of Fate of the Earth, the result is so shockingly close to Earth in the Balance that one could almost make out a case for plagiarism on Gore’s part. Perhaps some publisher will have the wit to meld the two books into one: The Fate of the Earth in the Balance.¶ But such a combination is not necessary. The two books directly intersect in several places. Gore writes, for example, that:¶ the political will that led to mass protests against escalating the arms race during the early 1980s came from a popular awareness that civilization seemed to be pulled toward the broad lip of a downslope leading to a future catastrophe--nuclear war--that would crush human history forever into a kind of black hole. . . . This is not unlike the challenge we face today in the global environmental crisis. The potential for true catastrophe lies in the future, but the downslope that pulls us toward it is becoming recognizably steeper with each passing year.[9]¶ In this, Gore was only returning the favor to Schell, who occasionally paused long enough from his lament over nuclear catastrophe to include a few nods to ecocatastrophe. For his part, Schell mentions “global heating through an increased ‘greenhouse effect,’” adding:¶ The nuclear peril is usually seen in isolation from the threats to other forms of life and their ecosystems, but in fact should be seen as the very center of the ecological crisis--as the cloud-covered Everest of which the more immediate, visible kinds of harm to the environment are the mere foothills. Both the effort to preserve the environment and the effort to save the species from extinction by nuclear arms would be enriched and strengthened by this recognition.[10]¶ Both books display an affectation for gilding their arguments with lots of brief references to major thinkers from a wide variety of disciplines. Consider Schell on Heisenberg:¶ The famous uncertainty principle, formulated by the German physicist Werner Heisenberg, has shown that our knowledge of atomic phenomena is limited because the experimental procedures with which we must carry out our observations inevitably interfere with the phenomena that we wish to measure.¶ Schell applies Heisenberg’s scientific insight to all forms of human investigation, writing that “a limit to our knowledge is fixed by the fact that we are incarnate beings, not disembodied spirits.”[11] The supposed separation from nature implied by Heisenberg’s idea limits our appreciation for both nature and our predicament.¶ Gore follows down the same track:¶ Earlier this century, the Heisenberg Principle established that the very act of observing a natural phenomenon can change what is being observed. Although the initial theory was limited in practice to special cases in subatomic physics, the philosophical implications were and are staggering. It is now apparent that since Descartes reestablished the Platonic notion and began the scientific revolution, human civilization has been experiencing a kind of Heisenberg Principle writ large. . . . [T]he world of intellect is assumed to be separate from the physical world.[12]¶ Gore opens his hit movie and companion book An Inconvenient Truth with an homage to the famous photo of the Earth taken from the moon by the Apollo 8 astronauts in 1968. This image, he tells us, played a key role in galvanizing the world’s environmental consciousness, underscoring the fragility of the planet. As he put it fulsomely in Earth in the Balance:¶ Those first striking pictures taken by the Apollo astronauts of the earth floating in the blackness of space were so deeply moving because they enabled us to see our planet from a new perspective--a perspective from which the preciousness and fragile beauty of the earth was suddenly clear.[13]¶ Schell uses the same trope:¶ As it happens, our two roles in the nuclear predicament have been given visual representation in the photographs of the earth that we have taken with the aid of another technical device of our time, the spaceship. These pictures illustrate, on the one hand, our mastery over nature, which has enabled us to take up a position in the heavens and look back on the earth as though it were just one more celestial body, and, on the other, our weakness and frailty in the face of that mastery, which we cannot help feeling when we see the smallness, solitude, and delicate beauty of our planetary home.[14]¶ These are only a few of the many examples that can be drawn of both books’ derivative and allusive nature. Both authors offer up references to Plato, Aristotle, Augustine, Francis Bacon, Einstein, Descartes, and Hannah Arendt in what might be called, to paraphrase Arendt, the banality of promiscuous allusion, all to bolster a superficial philosophical or anthropological point that is far distant from the politics and policy of either issue.¶ Most troubling is that both authors depict dissent from their point of view to be a pathology of some kind, foreclosing that there could be any rational basis for a different point of view. Gore compares dissenters to his view of our environmental predicament to garden-variety substance abusers, arguing that people who are oblivious to our “collision” with nature are “enablers” who are “helping to ensure that the addictive behavior continues. The psychological mechanism of denial is complex, but again addiction serves as a model.”[15] Elsewhere Gore compares our “dysfunctional civilization” to dysfunctional families, whose members suffer from “a serious psychological disorder.” While Gore begins this discussion by saying that family dysfunctionality is a metaphor, he ends by applying the concept literally: “The model of the dysfunctional family has a direct bearing on our ways of thinking about the environment.”[16] Schell is close aboard: “A society that systematically shuts its eyes to an urgent peril to its physical survival and fails to take any steps to save itself cannot be called psychologically well.”[17]¶ Both authors call for making their particular issue the paramount global priority in the same terms. Gore argues that “we must make the environment the central organizing principle [emphasis added] for civilization. . . . [T]he tide in this battle will turn only when the majority of people in the world become sufficiently aroused by a shared sense of urgent danger to join in an all-out effort.”[18] Schell wrote, “If we felt the peril for what it is--an urgent threat to our whole human substance--we would let it become the organizing principle [emphasis added] of our global collective existence: the foundation on which the world was built.”[19]¶ Having laid the groundwork for a wholesale change in our priorities, both Schell and Gore are surprisingly light on the social and political architecture of their alternative world. This is explicitly so in Schell’s case: “I have not sought to define a political solution to the nuclear predicament. . . . I have left to others those awesome, urgent tasks.”[20] Gore’s approach is better supported; he offers a laundry list of specific policy recommendations mostly on energy and resource use, but it falls far short of his desired “wrenching transformation” of civilization. If the broader solution to our predicament is not clear even in outline, it is because neither author fully grasps the magnitude of the critique he is making, such that a political solution--at least, a solution that is compatible with liberal democracy--is impossible. Neither man understands why.¶ The Real Source for The Fate of the Earth in the Balance¶ Despite the parade of quotes and references from Plato and Arendt, there is one thinker conspicuously absent from both Schell and Gore’s numerous citations but whose spirit is present on almost every page of both books: Martin Heidegger. Perhaps the absence of a reference to Heidegger is due to reticence or discretion, given Heidegger’s dubious and complicated association with Nazism. Nothing derails an argument faster than playing the reductio ad Hitlerum card. More likely it is the abstruse and difficult character of Heidegger’s arguments; Gore and Schell may not realize how closely the core of their argument about the technological alienation of man from nature tracks Heidegger’s more thorough account in his famous 1953 essay “The Question Concerning Technology.”[21]¶ Heidegger asks, “What is modern technology?” His understanding of technology is sometimes rendered in translation as “technicity” to convey a defective way of knowing about phenomena, and to distinguish the term from its more common usage to mean mere scientific instrumentality (think gadgets). Heidegger believed that our mode of objectifying nature alienates mankind from perceiving and contemplating pure “Being.” Whatever this may mean--and even Heidegger’s followers admit it is obscure (Heidegger himself wrote that “we are asking about something which we barely grasp”[22])--Heidegger suggests that philosophy has been asking the wrong questions since the very beginning, and the culmination of this wrong track is modern technology, which completes the alienation of man from nature. This is where Heidegger prepares the way for Gore.¶ Modern technology, according to Heidegger,¶ puts to nature the unreasonable demand that it supply energy which can be extracted and stored as such. . . . The earth now reveals itself as a coal-mining district, the soil as a mineral deposit. The field that the peasant formerly cultivated and set in order appears different from how it did when to set in order still meant to take of and maintain. . . . But meanwhile even the cultivation of the field has come under the grip of another kind of setting-in-order, which sets upon [italics in original] nature. It sets upon it in the sense of challenging it. Agriculture is now the mechanized food industry. Air is now set upon to yield nitrogen, the earth to yield ore, ore to yield uranium, for example; uranium is set upon to yield atomic energy, which can be released either for destruction or for peaceful use.[23]¶ Here are Gore’s parallel passages:¶ [O]ur civilization is holding ever more tightly to its habit of consuming larger and larger quantities every year of coal, oil, fresh air and water, trees, topsoil, and the thousand other substances we rip from the crust of the earth. . . . We seem increasingly eager to lose ourselves in the forms of culture, society, technology, the media, and the rituals of production and consumption, but the price we pay is a loss of our spiritual lives.[24]¶ And:¶ Our seemingly compulsive need to control the natural world . . . has driven us to the edge of disaster, for we have become so successful at controlling nature than we have lost our connection to it.[25]¶ It is possible to compile a long inventory of close parallels between Heidegger and Gore. For example, Heidegger told interviewers in 1966:¶ [T]echnicity increasingly dislodges man and uproots him from the earth. . . . The last 30 years have made it clearer that the planet-wide movement of modern technicity is a power whose magnitude in determining [our] history can hardly be overestimated.[26]¶ Heidegger also found the earth-from-space photos as affecting as Gore and Schell:¶ I don’t know if you were shocked, but [certainly] I was shocked when a short time ago I saw the pictures of the earth taken from the moon. We do not need atom bombs at all [to uproot us]--the uprooting of man is already here. All our relationships have become merely technical ones. It is no longer upon an earth than man lives today.[27]¶ Gore likes to cite the supposed proverb that the Chinese symbol for “crisis” also means “opportunity.” Heidegger was fond of quoting a line from the German poet Hölderlin: “Where danger lies, there too grows the chance for salvation.” And is it necessary to mention that Heisenberg’s uncertainty principle also shows up for duty in Heidegger’s essay on technology? Heidegger is often said to have advocated a return to pre-Socratic philosophy, though in fact he was skeptical that there was any philosophical solution to the problem he perceived. Gore follows Heidegger closely when he criticizes Plato and the Western philosophic tradition for preparing the ground for modern man’s estrangement from nature:¶ The strange absence of emotion, the banal face of evil so often manifested by mass technological assaults on the global environment, is surely a consequence of the belief in an underlying separation of intellect from the physical world. At the root of this belief lies a heretical understanding of humankind’s place in the world as old as Plato, as seductive in its mythic appeal as Gnosticism, as compelling as the Cartesian promise of Promethean power--and it has led to tragic results.[28]¶ Political Implications¶ Assuming for the purposes of discussion that Gore’s Heideggerian analysis is correct, can a reconnection of intellect and the physical world be accomplished through politics--or led by politicians? Heidegger did not think so, which is why he said it would be impossible for him to write an ethical or political treatise.[29] He doubted democracy offered any hope. In an interview late in life, Heidegger said, “For me today it is a decisive question as to how any political system--and which one--can be adapted to an epoch of technicity. I know of no answer to this question. I am not convinced that it is democracy.”[30] Heidegger was contemptuous of postwar democratic reforms--calling them “halfway measures”--including individual constitutional rights, because:¶ I do not see in them any actual confrontation with the world of technicity, inasmuch as behind them all, according to my view, stands the conception that technicity in its essence is something that man holds within his own hands.¶ Heidegger thought American democracy was the most hopeless of all, in words that sound in substance exactly like Gore’s complaint:¶ [Americans] are still caught up in a thought that, under the guise of pragmatism, facilitates the technical operation and manipulation [of things], but at the same time blocks the way to reflection upon the genuine nature of modern technicity.[31]¶ (Separately, Heidegger wrote that America epitomized “the emerging monstrousness of modern times.”[32])¶ From here it is possible to comprehend more dispassionately Heidegger’s attraction to the Nazi movement in the 1930s. He had no brief for fascism in general or National Socialism in particular, nor was he an anti-Semite.[33] What he expressed in his famous “Rector’s Address”[34] in 1934 was that the “inner truth and greatness” of the Nazi movement was its potential “encounter between technicity on the planetary level and modern man,” and that it “casts its net in these troubled waters of ‘values’ and ‘totalities,’” or, as he put it a 1948 letter to Herbert Marcuse, “a spiritual renewal of life in its entirety.”[35] In other words, the “wrenching transformation” of Germany that the Nazi revolution set in motion held the potential for reconnecting humankind with the essence of Being in a primal, pre-Socratic way. Heidegger’s moral blindness to the phenomenon in front of him exposes the hazard of an excessively abstract approach to human existence. As Heidegger’s example shows, the idea of transforming human consciousness through politics is likely an extremist--and potentially totalitarian--project.¶ Reviewing the fundamentally Heideggerian understanding of our environmental predicament in Gore’s thought throws new light on the deeper meaning of Gore’s call for a “wrenching transformation” of civilization on the level of thought. Gore would no doubt be sincerely horrified at the suggested parallel between his themes and Heidegger’s moral blindness toward political extremism, and rightly reject it as the implication of his views. He is, thankfully, too imbued with the innate American democratic tradition to embrace any such extremism.[36] But it is fair to ask whether he has fully thought through the implications of his ambitious critique. In the case of both Gore and Schell before him, the Heideggerian approach reveals a certain cast of mind: deeply pessimistic, but utopian at the same time. Our salvation demands submitting to the moral authority of their “vision” to change our “consciousness.” After all, one aspect of Plato that Heidegger approves of is the view that mankind will suffer unremitting disaster until either rulers become philosophers or philosophers become rulers. (Indeed it was the failure of intellectuals to guide the Nazi movement that led to its ruin, Heidegger thought.) Gore seems to be making a round trip, looking to end up on either end of this potentiality, envisioning himself either as a ruler who has become a philosopher or as a philosopher who may yet (again) become a ruler.¶ Is it so farfetched to suggest that this has some problematic, if unintended, political implications? One of Gore’s sound and important arguments in Earth in the Balance and An Inconvenient Truth is that it is a profound error to suppose that the earth’s environment is so robust that there is little or nothing that mankind could do to damage it seriously. He is right, as was Heidegger, to point out the immense earthshaking power of modern technology. But there is a symmetrical observation to be made of Gore’s metaphysical approach to the problem, which is that it is an equally profound error to suppose that the environment of human liberty is so robust that there is no political intervention on behalf of the environment that could not damage liberty in serious ways, especially if the environment is elevated to the central organizing principle of civilization. Implicit in this goal is downgrading human liberty as the central organizing principle of civilization. There are no index entries in Earth in the Balance for “liberty,” “freedom,” or “individualism.” Heidegger believed the liberal conceptions of these great terms were meaningless or without foundation. There is no acknowledgement in Gore’s book that this is even a serious consideration. Gore’s one discussion of the matter is not reassuring:¶ In fact, what many feel is a deep philosophical crisis in the West has occurred in part because this balance [between rights and responsibilities] has been disrupted: we have tilted so far toward individual rights and so far away from any sense of obligation that it is now difficult to muster an adequate defense of any rights vested in the community at large or the nation--much less rights properly vested in all humankind or in posterity.[37]¶ But Is It Necessary?¶ Is Gore’s high-level metaphysical analysis necessary in the first place? Do we really have to resolve or unwind the problem of Platonic idealism and Cartesian dualism to address the problem of climate change? The example of the previous case in point--the arms race--suggests an answer. The arms race did not require a revolution in human consciousness or a transformation of national and global political institutions to bring about rapid and favorable changes. The kind of grandiose, pretentious thinking exemplified in Fate of the Earth played little or no role in these shifts. The problem turned out to be much simpler. The acute problem of the superpower arms race was mostly a moral problem--not a metaphysical problem--arising from the character of the irreconcilable regimes. As was frequently pointed out, the United States never worried about British or French nuclear weapons. Once the United States and the Soviet Union were able to establish a level of trust and common interest, unwinding the arms race became a relatively easy matter. Nuclear weapons and the threat of nuclear proliferation in unsavory regimes (Iran, North Korea) is still around today, but the acute existential threat of the arms race has receded substantially.¶ In the early 1980s, The Fate of the Earth became the Bible for the nuclear freeze movement--the simplistic idea brought to you by the same people who thought Ronald Reagan was a simpleton. To his credit, then representative and later senator Gore opposed the nuclear freeze. Nowadays Gore has started to call for an immediate freeze on greenhouse-gas emissions, which he must know is unrealistic. His explanation in a recent speech shows that he missed entirely the lesson from that earlier episode:¶ An immediate freeze [on CO2 emissions] has the virtue of being clear, simple, and easy to understand. It can attract support across partisan lines as a logical starting point for the more difficult work that lies ahead. I remember a quarter century ago when I was the author of a complex nuclear arms control plan to deal with the then rampant arms race between our country and the former Soviet Union. At the time, I was strongly opposed to the nuclear freeze movement, which I saw as simplistic and naive. But, three-quarters of the American people supported it--and as I look back on those years I see more clearly now that the outpouring of public support for that very simple and clear mandate changed the political landscape and made it possible for more detailed and sophisticated proposals to eventually be adopted.[38]¶ The irony of this statement is that since the moral and political differences between the United States and the Soviet Union could not be resolved diplomatically, the way to move relations forward was to convert relations into a technical problem (i.e., negotiations over the number and specifications of weapons systems). Gore remained firmly within the technocratic arms-control community throughout this period, even as Schell and others tried to moralize the arms-control problem with the nuclear freeze proposal. But the moral confusion (some critics said the premise of moral equivalence) of the freeze idea made it a sideshow at best and a hindrance at worst. On the contrary, President Reagan’s resistance to the freeze, as well as the conventions of the arms-control process to which Gore held, were crucial to his strategy for changing the dynamic of the arms race. Having been an arms-control technocrat in the 1980s, Gore today wants to turn the primarily technical and economic problems of climate change into a moral problem.¶ Gore’s argument that climate change is a moral problem and not a political problem is not serious, since the leading prescriptions

 for treating the problem all require massive applications of political power on a global scale. Skeptics and cynics might dismiss Gore’s metaphysical speculations as mere intellectual preening, as many critics did with Fate of the Earth in the 1980s. But such an approach to environmental issues may be an obstacle to many practical, incremental steps that can be taken to solve real climate-policy problems. Once one grasps the Heideggerian character of the Gore approach to thinking about environmental problems, the hesitance about nuclear power comes into better focus. Gore and others in his mold dislike large-scale technologies because they are intrinsic to mankind’s mastery of nature that is driving our supposed alienation from nature. This same premise also explains the frequently hostile reaction of many environmentalists to suggestions that adaptation to climate change should be a part of any serious climate policy, even though many leading climate scientists and the Intergovernmental Panel on Climate Change have embraced adaptation. The suggestion that technologies for climate modification might be developed, which would be the climate policy equivalent of Reagan’s Strategic Defense Initiative, are greeted contemptuously for the same reason.¶ Will climate policy ultimately be guided by physicians or metaphysicians? Gore’s high-profile position on these issues tilts the balance toward metaphysicians. This is certain to generate ferocious resistance to change well beyond merely self-interested industries. Gore would be better off following the advice of Heidegger critic Stanley Rosen, and “step downward, out of the thin atmosphere of the floating island of Laputa or of the balloons in which so many of our advanced thinkers are currently suspended, back into the rich air of everyday life.”[39] That’s a fancy way of saying, “Take a deep breath, Al.”