**1AC – Status Quo**

**Renewables currently barred from forming MLPs—this stifles renewable energy projects**

**Blodgett and Gawell 12**

(Leslie and Karl, Geothermal Energy Weekly, “New MLP Parity Act Could Give a Boost to Geothermal/Renewable Energy Investors,” 2012, <http://geo-energy.org/Newsletter/2012/Geothermal%20Energy%20Weekly%20July%2019%202012.pdf//wyo-mm>)

An MLP is a business structure that is taxed as a partnership, but whose ownership interests are traded like corporate stock on a market. By statute, **MLPs have only been available to investors in energy portfolios for oil, natural gas, coal extraction, and pipeline projects**. These projects get access to capital at a lower cost and are more liquid than traditional financing approaches to energy projects, making them highly effective at attracting private investment. **Investors in renewable energy projects**, however, **have been explicitly prevented from forming MLPs, starving a growing portion of America’s domestic energy sector of the capital it needs to build and grow**. See also a white paper on the MLP Parity Act. Original cosponsors: Senators Jon Tester (D-Mont.), Al Franken (D-Minn.), Amy Klobuchar (D-Minn.), Sheldon Whitehouse (D-R.I.), and Jeanne Shaheen (D-N.H.).

**1AC – Plan**

#### The United States federal government should expand eligibility for Master Limited Partnerships for the production of wind power.

**1AC – Warming Advantage**

**American clean energy markets are on the verge of collapse- a perfect storm of expiring financial incentives and declining export opportunities will gut renewables absent fast policy action**

**Jenkins et al 12**

[Jesse, Director of Energy and Climate Policy, Breakthrough Institute, Mark Muro, Senior Fellow, Metropolitan Policy Program, Brookings Institution, Ted Nordhaus and Michael Shellenberger, Cofounders, Breakthrough Institute, Letha Tawney, Senior Associate, World Resources Institute, Alex Trembath, Policy Associate, Breakthrough Institute, Beyond Boom and Bust: Putting Clean Tech on a Path to Subsidy Independence, April 2012, p. online//wyo-tjc]

**In the absence of significant and timely energy policy reform, the recent boom in US clean tech sectors could falter**. **Driven by** private innovation and entrepreneurship as well as **critical public sector support in the form of tax credits, grants, and loan guarantees, several clean energy technology (or “clean tech”) segments have grown robustly in recent years while making progress on cost and performance**. Renewable electricity generation doubled from 2006 to 2011, construction is under way on the nation's first new nuclear power plants in decades, and American manufacturers have regained market share in advanced batteries and vehicles. Prices for solar, wind, and other clean energy technologies fell, while employment in clean tech sectors expanded by almost 12 percent from 2007 to 2010, adding more than 70,000 jobs even during the height of the recession.1 **Despite this recent success**, however, **nearly all clean tech segments in the United States remain reliant on production and deployment subsidies** or other supportive policies to gain an expanding foothold in today’s energy markets. **Now, many of these subsidies and policies are poised to expire—with substantial implications for the clean tech industry**. This report aims to take stock of the coming changes to federal clean tech subsidies and programs (Part 1); examine their likely impact on key clean tech market segments (Part 2); and chart a course of policy reform that can advance the US clean tech industry beyond today’s policy-induced cycle of boom and bust (Part 3). Along the way, this report provides a comprehensive analysis of the spending trajectory of 92 distinct federal policies and programs supporting clean tech sectors over the 2009 to 2014 period. As this analysis illustrates, **an era of heightened clean energy spending supported by the American Recovery and Reinvestment Act of 2009** (ARRA) **is now coming to an end, coinciding with the expiration of several additional time-delimited tax credits and programs. As a result, key portions of the clean tech industry can now anticipate substantially reduced federal support** (see Figure ES1). **At the same time, market subsidies are being cut in several European markets,2 reducing export oppor tunities for US clean tech manufacturers and leading to oversupply and declining margins**,3 even as pressure mounts from both low-cost natural gas at home4 and foreign clean tech manufacturers abroad.5 **US clean tech sectors therefore face a combination of new challenges, despite the growth and progress achieved in recent years**. The specific market impacts will vary by sector (see Part 2). But **without timely and targeted policy reform, several sectors are likely to experience more bankruptcies, consolidations, and market contraction ahead**.

**Warming is real; human caused and rapid: there are four key signals carbon dioxide increase, melting of polar ice caps, melting glaciers, and rapid sea level rise**

**Prothero 12**

(Donald R. Prothero is a Professor of Geology at Occidental College and Lecturer in Geobiology at the California Institute of Technology. “How we know global warming is real and human caused” Winter 2012. Academic OneFile//wyoccd)

Converging Lines of **Evidence How do we know that global warming is real and primarily human caused? There are numerous lines of evidence that converge toward this conclusion.** **1. Carbon Dioxide Increase.** **Carbon dioxide in our atmosphere has increased at an un-precedented rate in the past 200 years. Not one data set collected over a long enough span of time shows otherwise**. Mann et al. (1999) compiled the past 900 years' worth of temperature data from tree rings, ice cores, corals, and direct measurements in the past few centuries, and the sudden increase of temperature of the past century stands out like a sore thumb. This famous graph is now known as the "hockey stick" because it is long and straight through most of its length, then bends sharply upward at the end like the blade of a hockey stick. Other graphs show that climate was very stable within a narrow range of variation through the past 1000, 2000, or even 10,000 years since the end of the last Ice Age. There were minor warming events during the Climatic Optimum about 7000 years ago, the Medieval Warm Period, and the slight cooling of the Little Ice Age in the 1700s and 1800s. But **the magnitude and rapidity of the warming represented by the last 200 years is simply unmatched in all of human history. More revealing, the timing of this warming coincides with the Industrial Revolution, when humans first began massive deforestation and released carbon dioxide into the atmosphere** by burning an unprecedented amount of coal, gas, and oil. **2. Melting Polar Ice Caps. The polar icecaps are thinning and breaking up at an alarming rate**. In 2000, my former graduate advisor Malcolm McKenna was one of the first humans to fly over the North Pole in summer time and see no ice, just open water. **The Arctic ice cap has been frozen solid for at least the past 3 million years** (and maybe longer), (4) **but now the entire ice sheet is breaking up so fast that by 2030 (and possibly sooner) less than half of the Arctic will be ice covered in the summer**. (5) As one can see from watching the news, t**his is an ecological disaster for everything that lives up there, from the polar bears to the seals and walruses to the animals they feed upon,** to the 4 million people whose world is melting beneath their feet. The Antarctic is thawing even faster. In February-March 2002, the Larsen B ice shelf--over 3000 square km (the size of Rhode Island) and 220 m (700 feet) thick--broke up in just a few months, a story typical of nearly all the ice shelves in Antarctica. **The Larsen B shelf had survived all the previous ice ages and interglacial warming episodes** over the past 3 million years, and even the warmest periods of the last l0,000 years--**yet it and nearly all the other thick ice sheets on the Arctic, Greenland, and Antarctic are vanishing at a rate never before seen in geologic history. 3. Melting Glaciers**. **Glaciers are all retreating at the highest rates ever documented. Many of those glaciers, along with snow melt, especially in the Himalayas, Andes, Alps, and Sierras,** provide most of the freshwater that the populations below the mountains depend upon--yet this fresh water supply is vanishing. Just think about the percentage of world's population in southern Asia (especially India) that depend on Himalayan snowmelt for their flesh water. The implications are staggering. The permafrost that once remained solidly frozen even in the summer has now thawed, damaging the Inuit villages on the Arctic coast and threatening all our pipelines to the North Slope of Alaska. **This is catastrophic not only for life on the permafrost, but as it thaws, the permafrost releases huge amounts of greenhouse gases which are one of the major contributors to global warming. Not only is the ice vanishing**, **but we have seen record heat waves** over and over again, killing thousands of people, as each year joins the list of the hottest years on record. (2010 just topped that list as the hottest year, surpassing the previous record in 2009, and we shall know about 2011 soon enough). Natural animal and plant populations are being devastated all over the globe as their environments change. (6) Many animals respond by moving their ranges to formerly cold climates, so now places that once did not have to worry about disease-bearing mosquitoes are infested as the climate warms and allows them to breed further north.. **4. Sea Level Rise. All that melted ice eventually ends up in the ocean, causing sea levels to rise, as it has many times in the geologic past** **At present, the sea level is rising about 3-4 mm per year, more than ten times the rate** of 0.1-0.2 mm/year **that has occurred over the past 3000 years. Geological data show that the sea level was virtually unchanged over the past 10,000 years since the present interglacial began.** A few mm here or there doesn't impress people, until you consider that the rate is accelerating and that most scientists predict sea levels will rise 80-130 cm in just the next century. A sea level rise of 1.3 m (almost 4 feet) would drown many of the world's low-elevation cities, such as Venice and New Orleans, and low-lying countries such as the Netherlands or Bangladesh. A number of tiny island nations such as Vanuatu and the Maldives, which barely poke out above the ocean now, are already vanishing beneath the waves. Eventually their entire population will have to move someplace else. (7) Even a small sea level rise might not drown all these areas, but they are much more vulnerable to the large waves of a storm surge (as happened with Hurricane Katrina), which could do much more damage than sea level rise alone. If sea level rose by 6 m (20 feet), most of the world's coastal plains and low-lying areas (such as the Louisiana bayous, Florida, and most of the world's river deltas) would be drowned.

**Even if warming is natural: anthropogenic factors are uniquely the cause of accelerated, run away warming of the squo**

**Hegerl et al 11**

(Gabriele Hegerl is a professor of GeoSciences at the University of Edinburgh. Francis Zwiers works at the Paciﬁc Climate Impacts Consortium at the University of Victoria. Claudia Tebaldi works at Climate Central Inc. “Patterns of change: whose ﬁngerprint is seen in global warming?” IOP Science. Pg 2-3. 2011. http://iopscience.iop.org/1748-9326/6/4/044025/pdf/1748-9326\_6\_4\_044025.pdf//wyoccd)

**Climate models are a useful tool for investigating how natural and human factors may have affected the mean climate** [8]. **Because models explicitly calculate the effect of changes in energy balance on the climate**, which is the average weather, **climate model simulations are meaningful far beyond the time horizon over which weather can be predicted**. **Climate simulations of the 20th century—**in which solar output, explosive volcanic activity**, greenhouse gas concentrations and other human factors** (principally sulfate aerosols**) evolve during the century following their historical paths based on observations and emission data**—are able to reproduce the 20th century global average warming well as ﬁgure 1, right panel, indicates. **This panel also shows that models cannot reproduce the warming of the past several decades when anthropogenic factors are excluded. However, the attribution of observed climate change to human inﬂuence goes far beyond such visual comparisons**. Indeed, the comparison of the absolute amount of warming obtained in models and data is not the basis for attributing observed climate change to human inﬂuences. Rather, it is temporal and spatial patterns of change (referred to as ‘ﬁngerprints’) that provide key information on the causes of the observed changes. Fingerprints used in attribution assessments are grounded in physics. It is clear, and has been observed [9], that greenhouse gas increases have reduced the efﬁciency with which Earth can radiate heat from the surface to space, which should increase global surface temperature. **This warming effect is expected to take time to manifest itself since widespread warming of the ocean surface layers takes years, and warming of the deep ocean takes centuries** [10]. Thus, we expect that past changes in global temperature should display a delayed response to changes in the Earth’s energy balance. Further, physical reasoning indicates that the slow and steady warming from increasing greenhouse gases should be overlaid by the cooling effects of aerosol changes from human activity and episodic volcanic eruptions, and by the effects of changes in solar output. These time-based ﬁngerprints (see, for example, [11]), based on physical reasoning, are indeed consistent with observed changes that can be documented through the observational record, which now extends back for more than a century (e.g., [12]) over much of the globe. Exceptions are some high latitude areas and tropical land masses, whose coverage has increased in more recent periods, but gaps remain and long-term trends are uncertain in the latter regions (thus left blank in the ﬁgure).

**Rapid runaway warming creates several scenarios for extinction:**

**Scenario One: Environmental Collapse**

**Studies show warming is human caused and will cause extinction**

**Ahmed 2010**

(Nafeez Ahmed, Executive Director of the Institute for Policy Research and Development, professor of International Relations and globalization at Brunel University and the University of Sussex, Spring/Summer 2010, “Globalizing Insecurity: The Convergence of Interdependent Ecological, Energy, and Economic Crises,” Spotlight on Security, Volume 5, Issue 2, online)

Perhaps **the most notorious indicator is anthropogenic global warming**. **The landmark** 2007 Fourth **Assessment** Report of the UN Intergovernmental Panel **on Climate Change** (IPCC) – which **warned that at then-current rates of increase of fossil fuel emissions, the earth’s global average temperature would likely rise by 6°C by the end of the 21st century** creating a largely uninhabitable planet – was a wake-up call to the international community.[v] **Despite the pretensions of ‘climate sceptics,’ the peer-reviewed scientific literature has continued to produce evidence that the IPCC’s original scenarios were wrong – not because they were too alarmist**, but on the contrary, **because they were far too conservative**. According to a paper in the Proceedings of the National Academy of Sciences, **current CO2 emissions are worse than all six scenarios contemplated by the IPCC. This implies that the IPCC’s worst-case six-degree scenario severely underestimates the most probable climate trajectory** under current rates of emissions.[vi] It is often presumed that a 2°C rise in global average temperatures under an atmospheric concentration of greenhouse gasses at 400 parts per million (ppm) constitutes a safe upper limit – **beyond which further global warming could trigger rapid and abrupt climate changes that, in turn, could tip the whole earth climate system into a process of irreversible, runaway warming.[**vii] Unfortunately, we are already well past this limit, with the level of greenhouse gasses as of mid-2005 constituting 445 ppm.[viii] Worse still, cutting-edge scientific data suggests that the safe upper limit is in fact far lower**. James Hansen**, director of the NASA Goddard Institute for Space Studies, **argues that the absolute upper limit for CO2 emissions is 350 ppm: “If the present overshoot of this target CO2 is not brief, there is a possibility of seeding irreversible catastrophic effects.**”[ix] A wealth of **scientific studies** has **attempted to explor**e the role of **positive-feedback mechanisms between different climate sub-systems**, the operation of which could intensify the warming process. **Emissions beyond 350 ppm over decades are likely to lead to the total loss of Arctic sea-ice** in the summer **triggering magnified absorption** of sun radiation, **accelerating warming**; the melting of Arctic permafrost triggering **massive methane injections** into the atmosphere, accelerating warming; the **loss of half the Amazon rainfores**t triggering the momentous release of billions of tonnes of stored carbon, accelerating warming; and **increased microbial activity in the earth’s soi**l leading to further huge releases of stored carbon, accelerating warming; to name just a few. **Each of these feedback sub-systems alone is sufficient by itself to lead to irreversible, catastrophic effects that could tip the whole earth climate system over the edge**.[x] Recent studies now estimate that the **continuation of business-as-usual would lead to global warming of three to four degrees Celsius before 2060 with multiple irreversible, catastrophic impacts; and six, even as high as eight, degrees by the end of the century – a situation endangering the survival of all life on earth.[**xi]

**Try or die- the environment is at the tipping point- Collapse will be fast and catastrophic**

**AFP, 12**

(Agence France-Presse, citing UN study, “Environmental collapse now a serious threat: scientists,” Raw Story, http://www.rawstory.com/rs/2012/06/06/environmental-collapse-now-a-serious-threat-scientists/)

**The paper by 22 top researchers said a “tipping point” by which the biosphere goes into swift and irreversible change**, **with** potentially **cataclysmic impacts for humans, could occur as early as this century.**¶ The warning contrasts with a mainstream view among scientists that environmental collapse would be gradual and take centuries.¶ **The study appears ahead of the June 20-22 UN Conference on Sustainable Development,** the 20-year followup to the Earth Summit that set down priorities for protecting the environment.¶ The Nature paper, written by biologists, ecologists, geologists and palaeontologists from three continents, compared the biological impact of past episodes of global change with what is happening today.¶ **The factors in today’s equation include a world population that is set to rise from seven billion to around 9.3 billion by mid-century and global warming that will outstrip the UN target of two degrees Celsius** (3.6 degrees Fahrenheit).¶ **The team determined that once 50-90 percent of small-scale ecosystems become altered, the entire eco-web tips over into a new state, characterised especially by species extinction**s.¶ **Once the shift happens, it cannot be reversed.**¶ To support today’s population, about 43 percent of Earth’s ice-free land surface is being used for farming or habitation, according to the study.

#### Scenario Two: Middle East

**Global warming leads to famine, droughts and water wars in the Middle East, and helped fuel the Arab Spring**

**Romm 12**

Joe Romm is a Fellow of the American Association for the Advancement of Science.“[Must-Read: Tom Friedman On Climate Change And ‘The Other Arab Spring’](http://thinkprogress.org/climate/2012/04/08/460221/tom-friedman-on-climate-change-and-the-other-arab-spring/)” <http://thinkprogress.org/climate/2012/04/08/460221/tom-friedman-on-climate-change-and-the-other-arab-spring/>, accessed 9-2-12,WYO/JF

“[**The Arab awakening**](http://www.nytimes.com/2012/04/08/opinion/sunday/friedman-the-other-arab-spring.html?_r=2&hp) **was driven not only by political and economic stresses, but**, less visibly, by **environmenta**l, population **and climate stresses** as well. If we focus only on the former and not the latter, we will never be able to help stabilize these societies.” **NOAA** [**concluded in 2011**](http://thinkprogress.org/romm/2011/10/27/355639/noaa-climate-change-mediterranean-droughts/) **that “human-caused climate change [is now] a major factor in more frequent Mediterranean droughts**.” Reds and oranges highlight lands around the Mediterranean that experienced significantly drier winters during 1971-2010 than the comparison period of 1902-2010. [Click to enlarge.] **New York Times columnist Tom Friedman has a** [**terrific column**](http://www.nytimes.com/2012/04/08/opinion/sunday/friedman-the-other-arab-spring.html?_r=2&hp) **on how climate change has already begun to impact the Middle East — and how it is only going to get much worse if we don’t act soon.** Friedman is one of the few journalists and columnists to win 3 Pulitzers, his first for coverage of the war in Lebanon, then for his coverage of Israel, and finally for commentary on global terrorism. His bestseller From Beirut to Jerusalem won the 1989 U.S. National Book Award for Nonfiction. He opens today’s column, “[**The Other Arab Spring**](http://www.nytimes.com/2012/04/08/opinion/sunday/friedman-the-other-arab-spring.html?_r=2&hp)**,”** with some telling details: **ISN’T it interesting that the Arab awakening began in Tunisia with a fruit vendor who was harassed by police for not having a permit to sell food — just at the moment when world food prices hit record highs**? And that it began in Syria with farmers in the southern village of Dara’a, who were demanding the right to buy and sell land near the border, without having to get permission from corrupt security officials? **And that it was spurred on in Yemen — the first country in the world expected to run out of water — by a list of grievances against an incompetent government, among the biggest of which was that top officials were digging water wells in their own backyards** at a time when the government was supposed to be preventing such water wildcatting? As Abdelsalam Razzaz, the minister of water in Yemen’s new government, told Reuters last week: “The officials themselves have traditionally been the most aggressive well diggers. Nearly every minister had a well dug in his house.” Then he goes on to excerpt an important analysis from the Center for Climate and Security (which I [reposted here](http://thinkprogress.org/romm/2012/03/03/437051/syria-climate-change-drought-and-social-unrest/)): “**Syria’s current social unrest is, in the most direct sense, a reaction to a brutal and out-of-touch regime**,” write Francesco Femia and Caitlin Werrell, in a report for their Center for Climate and Security in Washington. “**However, that’s not the whole story. The past few years have seen a number of significant social, economic, environmental and climatic changes in Syria that have eroded the social contract between citizen and government.** … If the international community and future policy makers in Syria are to address and resolve the drivers of unrest in the country, these changes will have to be better explored.” **From 2006-11, they note, up to 60 percent of Syria’s land experienced one of the worst droughts and most severe set of crop failures in its histor**y. “According to a special case study from last year’s Global Assessment Report on Disaster Risk Reduction, of the most vulnerable Syrians dependent on agriculture, particularly in the northeast governorate of Hassakeh (but also in the south), ‘nearly 75 percent … suffered total crop failure.’ Herders in the northeast lost around 85 percent of their livestock, affecting 1.3 million people.” **The United Nations reported that more than 800,000 Syrians had their livelihoods wiped out by these droughts, and many were forced to move to the cities to find work — adding to the burdens of already incompetent government. “If climate projections stay on their current path, the drought situation in North Africa and the Middle East is going to get progressively worse, and you will end up witnessing cycle after cycle of instability that may be the impetus for future authoritarian responses**,” argues Femia. “There are a few ways that the U.S. can be on the right side of history in the Arab world. One is to enthusiastically and robustly support democratic movements.” The other is to invest in climate-adaptive infrastructure and improvements in water management — to make these countries more resilient in an age of disruptive climate change. **A key point is that it’s now increasingly clear that the climate models that had been predicting the countries surrounding the Mediterranean would start to dry out were correct** (see “[NOAA: Human-Caused Climate Change Already a Major Factor in More Frequent Mediterranean Droughts](http://thinkprogress.org/romm/2011/10/27/355639/noaa-climate-change-mediterranean-droughts/),” the source of the figure at the top). Friedman writes: “**The magnitude and frequency of the drying that has occurred is too great to be explained by natural variability alone,”** noted Martin Hoerling, of NOAA’s Earth System Research Laboratory, the lead author of the paper. “**This is not encouraging news for a region that already experiences water stress, because it implies natural variability alone is unlikely to return the region’s climate to normal.”** Especially when you consider the other stresses. Nafeez Mosaddeq Ahmed, the executive director of the Institute for Policy Research and Development in London, writing in The Beirut Daily Star in February, pointed out that 12 of the world’s 15 most water-scarce countries — Algeria, Libya, Tunisia, Jordan, Qatar, Saudi Arabia, Yemen, Oman, the United Arab Emirates, Kuwait, Bahrain, Israel and Palestine — are in the Middle East, and after three decades of explosive population growth these countries are “set to dramatically worsen their predicament. Although birth rates are falling, one-third of the overall population is below 15 years old, and large numbers of young women are reaching reproductive age, or soon will be.” A British Defense Ministry study, he added, “has projected that by 2030 the population of the Middle East will increase by 132 percent — generating an unprecedented ‘youth bulge.’ ”

**Global warming causes accelerated Middle East conflict and insecurity**

[**Werz**](http://www.americanprogress.org/about/staff/werz-michael/bio/) **12**

Michael is a Senior Fellow at American Progress where his work focuses on climate migration and security as well as transatlantic foreign policy including Turkey. [Kari Manlove](http://www.americanprogress.org/aboutus/staff/ManloveKari.html) is a Research Associate for the Energy Opportunity team, where she does research and writes on global energy poverty alleviation and a range of issues related to the international climate negotiations,

“Climate Change, Migration, and Conflict Addressing Complex Crisis Scenarios in the 21st Century” <http://www.americanprogress.org/issues/security/report/2012/01/03/10857/climate-change-migration-and-conflict/>, accessed 9-4-12,WYO/JF

**The Arab Spring can be at least partly credited to climate change**. **Rising food prices and efforts by authoritarian regimes to crush political protests** were linked first to food and then to political repression—two important motivators in the Arab makeover this past year. To be sure, longstanding economic and social distress and lack of opportunity for so many Arab youth in the Middle East and across North Africa only needed a spark to ignite revolutions across the region. **But environmental degradation and the movement of people from rural areas to already overcrowded cities alongside rising food prices enabled the cumulative effects of long-term economic and political failures to sweep across borders with remarkable agility**. It does not require much foresight to acknowledge that other **effects of climate change will add to the pressure in the decades to come**. In particular the cumulative overlays of climate change with human migration driven by environmental crises, political conflict caused by this migration, and competition for more scarce resources will add new dimensions of complexity to existing and future crisis scenarios. **It is thus critical to understand how governments plan to answer and prioritize these new threats from climate change**, migration, **and conflict**.

#### Instability leaves nuclear facilities vulnerable to attack or being stolen

Heenan 11

(Bill Heenan, Middle East Affairs Examiner. “Will political instability pose risks to nuclear facilities in Middle East?” March 19, 2011. http://www.examiner.com/article/will-political-instability-pose-risks-to-nuclear-facilities-middle-east//wyoccd)

While Palestinians mull over how to deal with the wave of unrest in the rest of the Arab World, Israel remains quiet for the moment. Yet it is well prepared for nuclear war and operates at least two research and production reactors. However, three of its Arab neighbors--Egypt, Jordan, and Syria—possess research reactors or hope to acquire them. The Jewish state is not a member of the watchdog International Atomic Energy Agency. Nor is it a champion of non-nuclear proliferation, except when it comes to the Syrian Arab Republic. Syria's hostility toward Israel brought bombers that destroyed a suspected North Korean-built nuclear facility in 2007. At present Syria is operating a miniature neutron source reactor for "research" purposes. A more dangerous rival, Iran is much closer to producing nuclear weapons. The West has already imposed sanctions on the Islamic Republic, which has already built at least three nuclear power plants and is running several research facilities, which could produce weapons-grade uranium in the future. Nations with nuclear facilities experiencing protests What about the Arab nations caught up in protest movements? Algeria’s Es Salaam and Nur research reactors are functioning, while in Morocco, the TRIGA reactor is under construction. Egypt was maintaining the Inshas Nuclear Research Center as well as the ETTR-1 and ETTR-2 reactors. In addition, before President Mubarak left power, four nuclear power plants were on order, with promises of assistance from Russia, South Korea, France, China, Australia, and the U.S. Will the new Egyptian authorities respect the former leader’s call for a nuclear-free zone in the region? No-Fly Zone or not, Col. Gaddafi is guarding the Soviet-built Tajura Nuclear Research Center deep in Libyan Loyalist territory outside of Tripoli. Will intensified NATO air-interdiction efforts cause the Libyan leader to release radiation, or will an errant missile or bomb do the job? The Libyan people and their guest workers have suffered much already. Jordan is planning on building a nuclear research reactor to go online in 2020, while Saudi Arabia recently signed a nuclear cooperation agreement with the French last summer. Even Bahrain has been considering going nuclear. It held such discussions with the U.S. in 2008. No complaints here The United Arab Emirates is planning on building four nuclear power plants by 2017 with the help of a South Korean consortium. Last year Kuwait signed a nuclear agreement with France, and Qatar has initiated similar talks. Middle Eastern meltdown? If new governments hostile to the West emerge, the now-peaceful nuclear research facilities could be geared toward weapons production. Alternatively, if civil war or civil strife damaged these facilities, dangerous amounts of radiation could be released. Therefore, the West needs to ensure that these nuclear resources are protected and remain secure.

#### Nuclear terrorism leads to extinction

Morgan 09

(Dennis, Professor @ Hankuk University of Foreign Studies (South Korea, “World on fire: two scenarios of the destruction of human civilization and possible extinction of the human race,” Futures, November, Science Direct//wyoccd)

In a remarkable website on nuclear war, Carol Moore asks the question ‘‘Is Nuclear War Inevitable??’’ [10].4 In Section 1, Moore points out what most terrorists obviously already know about the nuclear tensions between powerful countries. No doubt, they’ve figured out that the best way to escalate these tensions into nuclear war is to set off a nuclear exchange. As Moore points out, all that militant terrorists would have to do is get their hands on one small nuclear bomb and explode it on either Moscow or Israel. Because of the Russian ‘‘dead hand’’ system, ‘‘where regional nuclear commanders would be given full powers should Moscow be destroyed,’’ it is likely that any attack would be blamed on the United States’’ [10]. Israeli leaders and Zionist supporters have, likewise, stated for years that if Israel were to suffer a nuclear attack, whether from terrorists or a nation state, it would retaliate with the suicidal ‘‘Samson option’’ against all major Muslim cities in the Middle East. Furthermore, the Israeli Samson option would also include attacks on Russia and even ‘‘anti-Semitic’’ European cities [10]. In that case, of course, Russia would retaliate, and the U.S. would then retaliate against Russia. China would probably be involved as well, as thousands, if not tens of thousands, of nuclear warheads, many of them much more powerful than those used at Hiroshima and Nagasaki, would rain upon most of the major cities in the Northern Hemisphere. Afterwards, for years to come, massive radioactive clouds would drift throughout the Earth in the nuclear fallout, bringing death or else radiation disease that would be genetically transmitted to future generations in a nuclear winter that could last as long as a 100 years, taking a savage toll upon the environment and fragile ecosphere as well. And what many people fail to realize is what a precarious, hair-trigger basis the nuclear web rests on. Any accident, mistaken communication, false signal or ‘‘lone wolf’ act of sabotage or treason could, in a matter of a few minutes, unleash the use of nuclear weapons, and once a weapon is used, then the likelihood of a rapid escalation of nuclear attacks is quite high while the likelihood of a limited nuclear war is actually less probable since each country would act under the ‘‘use them or lose them’’ strategy and psychology; restraint by one power would be interpreted as a weakness by the other, which could be exploited as a window of opportunity to ‘‘win’’ the war. In other words, once Pandora’s Box is opened, it will spread quickly, as it will be the signal for permission for anyone to use them. Moore compares swift nuclear escalation to a room full of people embarrassed to cough. Once one does, however, ‘‘everyone else feels free to do so. The bottom line is that as long as large nation states use internal and external war to keep their disparate factions glued together and to satisfy elites’ needs for power and plunder, these nations will attempt to obtain, keep, and inevitably use nuclear weapons. And as long as large nations oppress groups who seek self determination, some of those groups will look for any means to fight their oppressors’’ [10]. In other words, as long as war and aggression are backed up by the implicit threat of nuclear arms, it is only a matter of time before the escalation of violent conflict leads to the actual use of nuclear weapons, and once even just one is used, it is very likely that many, if not all, will be used, leading to horrific scenarios of global death and the destruction of much of human civilization while condemning a mutant human remnant,

**We solve for warming:**

**Wind power generation directly offsets emissions**

**Cullen 11**

Professor of economics at Harvard, is an economist who investigates the economics of energy and its implications for our environment. “Measuring the Environmental Benefits of Wind-Generated Electricity” <http://www.u.arizona.edu/~jcullen/Documents/measuringwind.pdf>, accessed 8-22-12,WYO/JF

Utilizing information on production decisions in 15-minute intervals on the Texas electricity grid, I estimate the response of each generator to exogenous changes in wind power, using a reduced form model. Realizing that **wind power production is not** 2 **completely random**, I control for factors that may drive the incentives for electricity production, which may also be correlated with wind power production. **The resulting quasi-experimental residual variation is then used to identify a substitution coefficient for each generator on the grid**. **This measures the average reduction in output due to a 1 megawatt (MW) increase in wind energy production. These production offsets translate directly into emissions offset using EPA measurements of power plant emission rates. Estimated emission offsets can be valued by appealing to pollution permit markets for regulated pollutants** (NOx and SO2) and estimates from the literature on the social cost of carbon for unregulated CO2 emissions. **This allows a direct comparison between the value of offset emissions with the cost of subsidies which drive investment in wind farms**. The remainder of the paper proceeds as follows. First, I describe the nature of federal and state subsidies received by wind power. Then I discuss the production of wind power and the institutions of the electricity market. This is followed by a description of the data, model, and estimation method. In the final section, I present the results and determine the value of offset emissions before concluding.

**Wind power solves – intermittency is only hype.**

**Curtis, 11**

The Guardian, 2011 [Polly, 11-21-11, “Do windfarms work?” <http://www.guardian.co.uk/politics/reality-check-with-polly-curtis/2011/nov/21/prince-philip-windfarms-useless#block-7> , accessed 9-22/12,WYO/JF

The Centre for Sustainable Energy, which is a green group campaigning for more sustainable energy, has compiled [this interesting report](http://www.cse.org.uk/downloads/file/common_concerns_about_wind_power.pdf) addressing common concerns about wind power. The group clearly has a green agenda but the report is based on peer-reviewed academic studies. It addresses a lot of the local issues that arise with a wind farm – public acceptance, property prices, safety, noise and bat and bird mortality. On wind farms' carbon footprint it says that wind compares "favourably" with other energy production methods and on intermittency it concludes: The unreliability of wind as an energy source has been overestimated and suppliers are used to dealing with changes in supply and demand. Thanks @some might say for raising the issue and thanks @spike25 for coming up with such a solid source of information. [2.16pm:](http://www.guardian.co.uk/politics/reality-check-with-polly-curtis/2011/nov/21/prince-philip-windfarms-useless#block-3) I've finally got hold of the really interesting data I was looking for on the relative costs of different energy sources. The following three tables are from the UK Electricity Generation Costs Update conducted by the consultants Mott MacDonald for the government last year. You can read the full report [here](http://www.decc.gov.uk/assets/decc/Statistics/Projections/71-uk-electricity-generation-costs-update-.pdf). (Many thanks to Adam Bell of Renewable UK for pointing me towards this information.) The charts show the average cost for each megawatt hour of electricity produced by each energy source over the lifetime of the power station, wind farm or other generator producing it. The longer the lifetime of the plant the cheaper the cost becomes over time. The first, for projects starting in 2009 shows that gas is the cheapest fuel but that onshore wind is more cost efficient than all forms of coal and nuclear but that offshore wind is the most expensive. (FOAK stands for "first of a kind" and NOAK stands for 'nth of a kind".) By 2017 new projects will see onshore wind as the cheapest source raising the prospect that subsidies will even have to shift more towards non-renewable sources. This chart from Ofgem shows the costs of the government's green policies for the average dual fuel bill. It shows that 6% of the bill is down to environmental obligations. An Ofgem press office told me that if you take electricity alone then green subsidies cost a person with an average annual bill of £440 just £19 a year. My colleague Terry Macalister, the Guardian's energy editor, writes with is very interesting analysis giving wider reasons to wean ourselves off fossil fuels: It's worth remembering that once installed those wind turbines do indeed provide "renewable" energy. They do not need refuelling at a future price unknown. They provide an element of local energy security that is hard to measure in financial term but could be worth a fortune strategically. Wind farms are not subject to the vagaries of Opec oil embargoes, Middle East wars or other issues that can drive up the price of oil and even cut supplies off completely. Neither does wind require companies to dig up carbon heavy tar sands or risk polluting the beaches of the US Gulf - never mind the pristine waters of the Arctic. The oil industry has never had to pay the price of its historic legacy: global warming and climate change. Ask the people of Tuvalu to draw up a bill for the potential loss of their country to carbon-induced rising sea levels. Wind needs subsidies to get going. Oil still needs them apparently - a century on. The UK government still has to give oil companies tax breaks to convince them to keep producing in the North Sea. [5.20pm:](http://www.guardian.co.uk/politics/reality-check-with-polly-curtis/2011/nov/21/prince-philip-windfarms-useless#block-7) Conclusion: Do windfarms work? Windfarms produce electricity but currently at a higher cost to fossil fuels. However, over the longterm today's onshore windfarms will prove cheaper than coal and nuclear and those built from 2017, are predicted to be cheaper than gas as well ([see 2.16pm](http://www.guardian.co.uk/politics/reality-check-with-polly-curtis/2011/nov/21/prince-philip-windfarms-useless#block-3)). Offshore windfarms are much more expensive to build and it will take longer for them to become cost effective ([see 12.32pm](http://www.guardian.co.uk/politics/reality-check-with-polly-curtis/2011/nov/21/prince-philip-windfarms-useless#block-1)). But they are more popular because they are less imposing on the populated landscape and produce more energy because of higher winds. Windfarms will always require other sources of energy to cushion falls in production caused by changes in weather conditions and sudden surges in demand. Around 15% to 22% of electricity produced by wind power must be supplemented by other sources to cope with fluctuations. It still amounts to a net gain in energy and reduction in the need for carbon sources but it means the technology to some extent will always rely on traditional back-up. However, it requires no fuel to run a windfarm, unlike other non-renewable sources that are heavily dependent. The Duke of Edinburgh is right that windfarms currently do require subsidies. All new energy sources require government subsidies to help them develop. The cost effectiveness of such subsidies depends on the political value you put on developing alternative clean sources of energy. It's worth remembering that the government also subsidises some fossil fuels, such as through tax breaks to encourage north sea drilling for oil to continue ([see 4.47pm](http://www.guardian.co.uk/politics/reality-check-with-polly-curtis/2011/nov/21/prince-philip-windfarms-useless#block-6)). In 2010, fossil fuels were subsidised to the tune of $409bn globally, while renewables got $66bn. The subsidy for renewable energy sources on the average £440 electricity bill is currently £19.

**Intermittency is manageable- predictions and constant patterns mean that the impact is negligible**

**Willey 12**

[Lawrence, “Challenges & Rewards for Engineers in Wind”, Mechanical Engineering, August, p. asp//wyo-tjc]

Many **opponents of wind** energy **try to point to the intermittency of wind and the need to provide backup** power or storage. Fortunately, with a holistic systems level view of the grid, **this argument doesn't stand up.** In fact, **large and abrupt changes in demand for electricity can and do adversely affect the output of conventional electric generation sources - such as grid operators facing the sudden loss of a large power plant** - **whereas wind output changes are typically more gradual and predictable**. This is easily understood by thinking of the continuous parade of storm fronts day to day, moving generally west to east in many regions, with wind plant after wind plant in the path of these storms taking their turn to spin up and generate electricity.

**MLPs solve renewables, greenhouse gas emissions, and stable energy generation**

**Congressional Documents and Publications, 6-7-12**

[US senate documents news release, “Senators Coons, Moran introduce bill to spark investment in renewable energy projects: Sen. Christopher A. Coons (D-DE) News Release.” Accessed online via proquest] /Wyo-MB

Josh Freed, vice president for clean energy, Third Way: "There are **2.3 trillion** reasons the United States should grow our domestic clean energy market. That's **the potential size of the global clean energy market. We can win a huge share of it if our national energy policies put clean and fossil technologies on a level playing field and we get more private investment into the clean energy market.** That's why Third Way proposed **expanding Master Limited Partnerships**, which help finance oil and natural gas development, **to include wind,** solar, **and other clean energy projects**. This **is a commonsense idea that will give mature clean technologies access to the cheap, private capital they need to get built**. We're thrilled Senator Chris Coons, an honorary co-chair of Third Way, and Senator Jerry Moran are taking the lead to build a bipartisan consensus on this issue that will help clean energy, the economy, and the country."¶ Rhone Resch, president and CEO, Solar Energy Industries Association: "This bill is an excellent step toward **leveling the playing field between renewable and incumbent energy sources by providing the solar industry with private capital in the same manner enjoyed by the oil and gas industry.** The solar industry employs 100,000 Americans, costs for consumers are dropping nationwide and solar deployment grew by 109% last year. Senator Coons' MLP proposal would build on this success, and SEIA applauds him for putting forward an idea that has the potential to attract additional private sector investment in solar projects. We look forward to working with Senator Coons and other stakeholders to **use smart policy to add market liquidity for renewable energy projects and to efficiently utilize tax incentives**." Bob Cleaves, president, Biomass Power Association: "The Biomass Power Association lauds Senator Coons for taking the lead on this very important issue. His legislation, which harmonizes the Internal Revenue Code **to make Master Limited Partnership arrangements available to renewable electricity developers, simplifies the tax laws and moves away from picking energy winners and losers**. **By obtaining easier access to capital, renewable energy facility developers will be able to replace fossil fuels, reduce greenhouse gases, and secure the electrical grid with stable, baseload power."**

**U.S leadership is key to solve for global ghg’s and warming, lead to massive amount of modeling, and decrease use of oil**

**NREL 08**

is a national laboratory of the U. S. Department of Energy, “Strengthening U.S. Leadership of International Clean Energy Cooperation “,<http://www.nrel.gov/international/pdfs/44261.pdf>, accessed 9-2-12,WYO/JF

Greenhouse Gas Impacts **The primary environmental benefit of the U.S.-led global clean energy market transformation will be reduced greenhouse gas emissions of 50-80% by 2050, which scientists think will prevent catastrophic climate change impacts—a large benefit to the U.S. and the global community**. **Clean energy tech**nologies **will provide more than half of the reductions needed to achieve that goal** (Figure 3) Other Environmental Benefits Significant local air quality and other environmental benefits will accompany the reductions in greenhouse gas emissions. **Reduced air emissions translate to improved health, lower health care costs, improved visibility, and reduced impacts on natural ecosystems**. **Increased use of clean energy also will reduce impacts from fossil fuel extraction and processing.** Increased access to clean energy in the poorest regions of the world will reduce the use of firewood, enabling cleaner indoor air quality and contributing to local sustainable development. Energy Security Benefits In addition to the decreased oil prices mentioned above, international clean energy market transformation will reduce global vulnerability to supply and price shocks, and could also decrease tensions over petroleum resources in key supply regions and U.S. costs of military intervention to help address conflicts that arise. **Reductions in U.S. demand for oil, which will be enabled by accelerated cost reductions for biofuels and transportation efficiency technologies through international cooperation, also will decrease U.S. vulnerability**. Impacts on Development **The clean energy market transformation will accelerate global economic growth and stability by enhancing access to clean energy in rural and urban areas worldwide**. More than 1 billion people around the world do not have modern energy services. **Providing access to clean energy will provide the power necessary for micro-enterprises, health clinics, schools, water supply, enhanced agricultural production, and similar services. U.S. leadership in this area will enhance diplomatic influence and help achieve U.S. and global sustainable development objectives, including universal access to modern energy services around the world by 2020, which is consistent with the Millennium Development Goals.**

**1AC Economy Advantage**

**Economic collapse coming now – manufacturing and investment are weak, and failure to resolve creates a sustained recession**

**Morici 12**

economist and professor at the University of Maryland's Smith School of Business, “The coming economic collapse and what can – and cannot – be done”, http://articles.sun-sentinel.com/2012-07-26/news/fl-pmcol-economics-fri0727-20120726\_1\_wall-street-banks-export-driven-growth-tax-cuts, 8-16-12,WYO/JF

**The U.S. economy is teetering on the brink of another recession**. The bad news is that, **if it goes down again, policymakers won't have many option**s, and like a weary heavyweight, **if it hits the mat again, it's down for good.**¶ **The recovery has been** terribly **disappointing; growth is hardly at 2 percent**, and unemployment hangs above 8 percent.¶ **Manufacturing and exports powered the expansion but are now weakening.** Consumer spending and existing home sales are flagging, because policymakers failed to aid underwater homeowners as generously as the banks.¶ **President Obama is doubling down on slow-growth policies**: new restrictions on offshore oil and CO2 emissions, and financial regulations that haven't stopped Wall Street banks from trading recklessly and rigging markets.¶ Gov. Romney has reverted to shop-worn Republican prescriptions: tax cuts, free trade and deregulation.¶ With the federal government spending 50 percent more than it takes in, no competent economist could endorse big rate cuts, beyond renewing the Bush tax cuts.¶ **China, by manipulating its currency and shutting out western products, helped cause the Great Recession and is now constraining recovery in the United States and Europe**. More **free trade agreements won't fix that**.¶ Dodd-Frank may be bureaucratic and ineffective, but no sane person could claim banks can regulate themselves. Smarter solutions, such as breaking up unmanageable institutions, are needed.¶ Many analysts ask if another **big innovation**, such as the automobile or computer, **could save the economy**. The problem is that many new products are creating more jobs in Asia than in the West, and many technology companies are consolidating or facing extinction (consider the smart phone, Hewlett Packard and Yahoo).¶ A lot of U.S. innovation is starting to look more like French art than American commerce. Yahoo, Facebook and Twitter made great contributions to the economy and culture but simply don't have business models that generate enough revenue and jobs.¶ Google succeeded by cannibalizing newspapers – the net effect has been to destroy more – and branching into software and media, which displaces workers elsewhere.¶ The profitable core of finance, investment banking, is shrinking. Burdensome regulations are a problem, but many clients – ranging from municipalities to wealth managers to foreign governments burned by Wall Street schemes – are now less interested in what Goldman Sachs and others peddle.¶ To save European governments, several trillions of dollars in sovereign debt must be written down. Beyond lacking a plan to equitably distribute the loss, Germany and other stronger states have not accepted that they cannot continue to pursue export-driven growth strategies and import more if southern Europe is to recover.¶ **China's policies hold itself and the West hostage.** Europe and **the United States can't keep printing and borrowing ever more money to sustain their export-driven growth strategy.¶ China must slow down, because it is too late to reorient its economy toward domestic consumption** without wrenching dislocations.¶ When the United States entered the recent crisis, its budget deficit was $161 billion. Now it is $1.3 trillion, and the Federal Reserve is already maintaining rock-bottom interest rates.¶ Even if Congress and the president extend the Bush tax cuts, any hiccup in Europe or China could throw the U.S. economy into a recession, and the world's biggest economy could hit the skids on its own.¶ Capital markets simply won't be able to absorb a $2.5 to $3 trillion federal deficit to further stimulate the U.S. economy, without sucking badly needed funds from struggling European and developing-country economies. The Fed could only print money to finance it and set off hyperinflation, but it can't lower interest rates much further.

**Manufacturing is down now, and kills the U.S. economy**

**Spicer 9-4**

Johnathan Spicer, writer for Reuters. “Manufacturing another headache for U.S. economy” <http://www.reuters.com/article/2012/09/04/us-usa-economy-manufacturing-idUSBRE8830MA20120904>, accessed 9-4-12,WYO/JF

**Manufacturing in the United States shrank at its sharpest clip in more than three years last month**, a survey showed on Tuesday, **the latest sign that the slowing global economy is weighing on an already weak U.S. recovery**. **August was the third month in a row of contraction in the factory secto**r, according to an Institute for Supply Management survey. **Firms hired the fewest workers since late 2009, a possible red flag for the August U.S. jobs report** due on Friday. **ISM's index of national factory activity fell to 49.6 i**n August, from 49.8 in July, and shy of the 50.0 median estimate in a Reuters poll of economists. **A reading below 50 indicates contraction in the key sector**. "Overall, today's report keeps intact concerns that industrial output growth could slow to a crawl in the remaining months of 2012," said JP Morgan economist Michael Feroli. **Manufacturing had faded as a driver of the recovery in the U.S. economy which is still struggling to add jobs more than three years after the recession was formally declared over.** On Monday, data showed a contraction in manufacturing had deepened in both Europe and [China](http://www.reuters.com/places/china). **U.S. unemployment in July remained high at 8.3 percent**. **Weak jobs growth has caused deep concern at the Federal Reserve.** It could add more stimulus as soon as next week. The weak economy is also center stage in the presidential election campaign. President Barack Obama, heading for the Democratic national convention this week, has previously highlighted the revival of manufacturing as a success story of his economic policies. Joe Manimbo, senior market analyst at Western Union Business Solutions in Washington, called the ISM index "a disappointing number that can bring the Fed a step closer to offering more support to the U.S. economy." **The U.S. dollar briefly trimmed gains against the euro after the ISM data was released**, while Treasuries held steady and stocks slipped. **A separate gauge of U.S. manufacturing showed the sector grew in August but at a pace that was still one of the weakest since October 2009.**

**MLPs only way to solve for renewables and the economy**

**DiMugno 12**

(Laura, editor, writer and journalist work has spanned areas including energy, the environment, travel, and technology, North American Wind Power, “UPDATED: New Legislation Could Unlock Billions Of Dollars In Wind Energy Investment,” June 7, 2012, <http://www.nawindpower.com/e107_plugins/content/content.php?content.9961//wyo-mm>)

**Opening up an investment vehicle long used in fossil-fuel markets to renewable energy resources could unlock billions of dollars in wind energy investment, according to a new report released by the Maguire Energy Institute at Southern Methodist University**. According to the study, **federal tax-code restrictions currently limit investment in renewable energy infrastructure by $5** billion **to $6 billion while**, at the same time, **prohibiting thousands of jobs from being created**. If the federal production tax credit for wind energy is not renewed beyond the end of this year, up to $15 billion in private investment could disappear. **Absent support for renewables at the federal level, the market will have to find other ways to keep the industry afloat** and the capital flowing. **One way to secure that investment could be through master limited partnerships** (MLPs), in which regular investors are allowed to purchase shares in publicly traded partnerships just like stock shares. MLPs have been a key investment tool in the oil and gas industries since the 1980s, but they are not currently available to renewables such as wind power. **MLPs have been** quite **successful in the energy sector**, and as a result, their use has increased dramatically over the past couple of decades. According to the report, in 1996, there were just 12 MLPs, with a market capitalization of about $8 billion. By 2011, those numbers had grown to 75 MLPs representing over $270 billion in market capitalization. Eighty percent of MLPs are in the energy sector, according to the report, but renewables are currently excluded. **The study’s authors used financial modeling to expand the MLP structure to include renewable energy, and the results were astounding: Opening up MLPs to renewables could lead to an additional $3.2 billion to $5.6 billion in investment between now and 2021,** they said, noting that the specific number would depend on economic and market conditions. According to the report, **MLPs are a strong fit for renewable energy investments because power purchase agreements for wind and solar projects are generally long-term contracts that offer cashflow stability**.

**Thats key to economic growth**

**Economic Report to the President, 2011**

[White house staff, “Chapter 1: From Crisis recovery and growth.” Online, http://www.whitehouse.gov/sites/default/files/microsites/2011\_erp\_chapter1.pdf] /Wyo-MB

**Energy plays a critical role in the economy**, and Chapter 6 outlines key ¶ steps the Administration is taking to transition the Nation toward **cleaner ¶ sources of energy** that **have the potential to support new industries, exports,** ¶ **and high-quality jobs**; to improve air quality and reduce the dangers of ¶ climate change; **and to enhance America’s energy security and international ¶ competitiveness**. ¶ As an initial step, the Recovery Act directed over $90 billion in **public** ¶ **investment** and tax incentives **to** increasing **renewable energy sources** **such ¶ as wind** and solar power, weatherizing homes, and boosting R&D for new 26 | Chapter 1¶ technologies. Looking forward, the President has proposed a Federal Clean ¶ Energy Standard to double the share of electricity produced by clean sources ¶ to 80 percent by 2035, a substantial commitment to cleaner transportation ¶ infrastructure, and has increased investments in energy efficiency and clean ¶ energy R&D.¶ These programs are interconnected in important ways. They **are** all ¶ **motivated by the fact that the national benefits from clean energy go beyond** ¶ **its immediate producers or consumers. The programs focus on different** ¶ **parts of the clean energy supply chain—innovation, manufacturing, generation, and use—and thus complement one another.** And in the end, the ¶ Administration’s clean energy programs are linked by the goal that in ¶ coming years Americans will breathe cleaner air, enjoy better health, face ¶ reduced risks from climate change, and work and do business in an economy ¶ based on a safer and more secure energy supply.

**Wind drives manufacturing competitiveness on the global market and employs thousands**

**Burger 12**

(Andrew, graduate of the University of Colorado, reports on news and events at the nexus of environment, technology, political economy and society, Triple Pundit, “Growth in U.S. Wind Power Requires Federal Support,” August 15, 2012, <http://www.triplepundit.com/2012/08/growth-wind-power-requires-federal-support///wyo-mm>)

**Examining the effects on employment, the U.S. wind energy sector employs 75,000 Americans across its supply chain, according to industry estimates. The total includes workers at manufacturing facilities up and down the supply chain, as well as engineers and construction workers who build and operate wind farms.** Ongoing technological advances and manufacturing innovations continue to result in more efficient wind turbines, blades and power equipment, the DoE notes in its report. Gains are also being made in wind project capital and maintenance costs, which continue to decline. These, along with **support from the federal** and state **government**s **is “driving US manufacturing competitiveness on the global market**,” the report authors state. Indicative of the sharp and rapid decline in wind power cost, the price of wind power under long-term power purchase agreements (PPAs) with electric utilities was an average 40 percent lower last year than it was in 2010 and some 50 percent lower than in 2009. That’s resulted in wind power becoming “competitive with a range of wholesale power prices seen in 2011,” according to the report.

**Wind is key to sustainable job creation: employs wide range of labor**

**Wei et al 09**

(Max, Shana Patadia, and Daniel M. Kammen, Wei and Kammen work at the Energy and Resources Group, Patadia is at Haas School of Business, University of California, Energy Policy, “Putting renewables and energy efficiency to work: How many jobs can the clean energy industry generate in the US?” November 14, 2009, Science Direct//wyo-mm)

**Green jobs can** also **address the specific concern that skilled jobs are often sent abroad. According to the American Solar Energy Society green jobs report** (ASES, 2008), **job growth in the renewable energy and energy efficiency industries is biased towards technical, scientific, professional, and skilled workers**. For example, **wind energy is a reliable job creator for both skilled and unskilled labor**, as discussed by the European Wind Energy Association report (EWEA, 2009). **The wind turbines** themselves **necessitate construction and installation, as well as longer-term maintenance** work. Additionally, **the creation of wind farms requires planning, obtaining of permits, and ongoing supervision of the turbines.** Thus the wind industry employs a range of skilled and professional workers, from engineers, to meteorologists, to site managers that is not easily outsourced. **The solar industry similarly employs a range of workers, and the numerous technical skills involved in the creation of solar PV necessitate skilled labor.**

**Manufacturing is key to the US economy**

**Ettlinger and Gordon, 2011**

[Michael Ettlinger is the Vice President for Economic Policy and Kate Gordon is the Vice President for Energy Policy at the Center for American Progress, “The Importance and Promise of American Manufacturing.” 4-7-2011, Online, http://www.americanprogress.org/issues/labor/report/2011/04/07/9427/the-importance-and-promise-of-american-manufacturing/] /Wyo-MB

**Manufacturing is critically important to the American economy**. For generations, **the strength of our country rested on the power of our factory floors**—both the machines and the men and women who worked them. **We need manufacturing to continue to be a bedrock of strength for generations to come**. **Manufacturing is woven into the structure of our economy**: Its importance goes far beyond what happens behind the factory gates. **The strength or weakness of American manufacturing carries implications for the entire economy, our national security, and the well-being of all Americans.**

**Manufacturing Jobs are key to US technological leadership and economic competitiveness**

**Ettlinger and Gordon, 2011**

[Michael Ettlinger is the Vice President for Economic Policy and Kate Gordon is the Vice President for Energy Policy at the Center for American Progress, “The Importance and Promise of American Manufacturing.” 4-7-2011, Online, http://www.americanprogress.org/issues/labor/report/2011/04/07/9427/the-importance-and-promise-of-american-manufacturing/] /Wyo-MB

First, **jobs in the manufacturing sector are good middle-class jobs for millions of Americans**. **Those jobs serve an important role**, offering economic opportunity to hard-working, middle-skill workers. **This creates upward mobility and broadens and strengthens the middle class to the benefit of the entire economy**.¶ What’s more, U**.S.-based manufacturing underpins a broad range of jobs** that are quite different from the usual image of manufacturing. These are **higher-skill service jobs that include the accountants, bankers, and lawyers** that are **associated** **with** any **industry**, as well as a broad range of other jobs including **basic research and technology development, product and process engineering and design, operations and maintenance, transportation, testing, and lab work**.¶ **Many of these jobs are critical to American technology and innovation leadership.** The problem today is this: Many multinational corporations may for a period keep these higher-skill jobs here at home while they move basic manufacturing elsewhere in response to other countries’ subsidies, the search for cheaper labor costs, and the desire for more direct access to overseas markets, but eventually many of these service jobs will follow. **When the basic manufacturing leaves, the feedback loop from the manufacturing floor to the rest of a manufacturing operation—a critical element in the innovative process—is eventually broken. To maintain that feedback loop, companies need to move higher-skill jobs to where they do their manufacturing.¶ And with those jobs goes American leadership in technology and innovation. This is why having a critical mass of both manufacturing and associated service jobs in the United States matters**. **The “industrial commons**” that comes from the crossfertilization and engagement of a community of experts in industry, academia, and government **is vital to our nation’s economic competitiveness**.

**US key to world economy, exports, skilled workers and demand growth**

**Economic Report to the President, 2011**

[White house staff, “Chapter 4: The World Economy.” Online, http://www.whitehouse.gov/sites/default/files/microsites/2011\_erp\_chapter1.pdf] /Wyo-MB

The world economy has begun a transformation. Rapidly growing ¶ emerging-market countries and some advanced **countries with high savings** ¶ **will need to provide more demand to the world economy**, and countries ¶ that are borrowing too much will need to save more. Changes are already ¶ taking place in the composition of **U.S. exports** as services **play a larger role**, ¶ but **there will likely be continuity as well, as the United States maintains** ¶ **its exports of products that rely on sound legal institutions, an innovative ¶ economy, and the high skills and productivity of U.S. workers**. More of those ¶ products, though, are likely to be headed toward rapidly growing emerging ¶ markets, a change that will be essential if the U.S. economy is to meet the ¶ Administration’s goal of doubling exports in five years. ¶ Global Imbalances¶ As the G-20 actions show, world leaders have recognized that more ¶ balanced growth is essential to the world economy. The United States had ¶ a large current account deficit before the crisis, and the Administration has ¶ been clear that **the United States must find a** more **balanced growth model,** ¶ one **that involves** more **exports and investment**. The trade balance, or net ¶ exports, represents the bulk of the current account (net income on overseas ¶ assets and unilateral transfers such as foreign aid and remittances make up ¶ the rest). At the same time, the current account represents the net lending ¶ of a country to the rest of the world because if a country exports less than it ¶ imports, it must either borrow or sell foreign assets to pay for that consumption from abroad. ¶ The issue of global imbalances is a problem not just for the United ¶ States but for all nations. **A single country’s saving behavior can affect saving ¶ and investment around the globe**. A large deficit, for example, can take ¶ up too much world savings and crowd out borrowing in other countries. ¶ Conversely, a current account surplus means a country is not contributing ¶ as much to world demand as it is to world supply and may be lowering ¶ world interest rates and encouraging deficits in other countries. Surpluses ¶ become particularly contentious when global output is below potential ¶ output. Thus, the macroeconomic behavior and outcomes of different countries are linked.4 Before the crisis, when the United States was too reliant on ¶ consumption, other countries around the world were also too reliant on U.S. ¶ consumption and exports to the United States.¶ **The United States accounts for roughly one-quarter of the world ¶ economy, and consumption has historically accounted for roughly twothirds of the U.S. economy.** Thus, **one might normally expect 16–17 percent ¶ of world aggregate demand growth to come from U.S. consumers**. But ¶ emerging and developing economies often grow faster than more mature ¶ economies. Thus, a larger portion of world growth would be expected to ¶ come from emerging economies than their share of the world economy ¶ would warrant.

#### Your economic collapse defense doesn’t apply, No scenarios have been this bad

Root 8-23

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Everywhere from [FoxNews.com](http://www.foxnews.com/) to CNBC.com, I suddenly see commentators warning of pending doom, economic collapse, and a new Great Depression. Welcome to my club. Perhaps America's politicians and economists should have paid attention to an entrepreneur and small businessman that has been warning of economic collapse and a new Great Depression publicly for over two years. More importantly, none of the current commentaries mention the "why's" of this slow motion economic collapse...beyond the obvious -- mountains of deficit and debt. None of them mention the dysfunctional structure of the current U.S. economy and the massive changes in the work ethic and mindset of the average American. I am a successful small businessman and a patriot who loves America and always sees its greatness. I am also an optimistic, positive thinker who always sees the glass half full. But not this time. This time we are in such deep trouble, the only solution is a radical restructuring of the politicians, the economy, and the way we view personal responsibility versus government handouts. If those changes don't come then we are facing a long decline and the eventual end of America. The economy is crumbling. The situation is turning more hopeless by the hour. The more government gets involved, the worse it gets. Coincidence? This time the results are going to be dramatically worse than 1929. This time we are facing The Greatest Depression ever. Why? Because The Great Depression had NONE of the structural, economic, and social problems, nor the massive obligations we are now facing. Read the facts: In 1929 America was not [$16 trillion in debt, plus facing over $100 trillion in unfunded liabilities](http://kingworldnews.com/kingworldnews/KWN_DailyWeb/Entries/2011/12/30_John_Williams__The_US_Has_$100_Trillion_in_Debts_%26_Obligations.html)http://global.fncstatic.com/static/v/all/img/external-link.png. That’s over $360,000 in debt per citizen. In 1929, most of our states were not bankrupt, insolvent and dependent on federal government handouts to survive. One county (Cook County which includes Chicago, Illinois) now o[wes over $108 billion in debt](http://www.freerepublic.com/focus/f-news/2737919/posts)http://global.fncstatic.com/static/v/all/img/external-link.png (the biggest part of it in unfunded government employee pensions). In 1929, we did not have 21 million government employees with bloated salaries, obscene pensions, and free health care for life. Today 1 [out of 5 federal employees earn over $100,000](http://www.usatoday.com/news/washington/story/2011-12-26/federal-starting-salaries/52236360/1)http://global.fncstatic.com/static/v/all/img/external-link.png. Today, 77,000 federal employees [earn more than the governors of their states](http://www.washingtonpost.com/blogs/federal-eye/post/report-77000-feds-earn-more-than-governors/2011/03/23/AGLmuUGH_blog.html)http://global.fncstatic.com/static/v/all/img/external-link.png. Staggering numbers of federal government employees retire at a young age with [$100,000 pensions for lif](http://www.allgov.com/Top_Stories/ViewNews/Thousands_of_Federal_Retirees_Receive_100000_Dollars_a_Year_Pensions__Including_Newt_Gingrich_120122)http://global.fncstatic.com/static/v/all/img/external-link.pnge. Unfortunately on the state and local levels it’s even worse. There is now nearly $4 trillion in [unfunded pension liabilities](http://video.foxnews.com/v/1692134075001/study-39-trillion-in-unfunded-pension-liabilities/) for state government employees. Protected by their unions and the politicians they elect, government employees are bankrupting America. In Illinois there are retired government employees [making over $425,000 per year](http://www.taxpayersunitedofamerica.org/latest/illinois-govt-pensions-over-100000-up-27-since-last-year)http://global.fncstatic.com/static/v/all/img/external-link.png. No one could have imagined any of this in 1929. There is no possible way to pay these bills moving forward. In 1929, Social Security, Medicare, and Medicaid didn’t exist. The federal government had no such obligations threatening to consume the entire federal budget within a few years.

**Growth solves global wars—multiple reasons**

**Royal, 10**

Jedediah Royal, Director of Cooperative Threat Reduction at the U.S. Department of Defense 2010, Economic Integration, Economic Signaling and the Problem of Economic Crises, in Economics of War and Peace: Economic, Legal and Political Perspectives, ed. Goldsmith and Brauer, 2010. p. 213-215

**Less intuitive is how periods of economic decline** may **increase the likelihood of external conflict**. Political science literature has contributed a moderate degree of attention to the impact of economic decline and the security and defence behaviour of interdependent stales. Research in this vein has been considered at systemic, dyadic and national levels. Several notable contributions follow. First, on the systemic level. Pollins (20081 advances Modclski and Thompson's (1996) work on leadership cycle theory, finding that **rhythms in the global economy are associated with the rise and fall of a pre-eminent power and the often bloody transition from one pre-eminent leader to the next.** As such, **exogenous shocks such as economic crises could usher in a redistribution of relative power** (see also Gilpin. 19SJ) **that leads to uncertainty about power balances, increasing the risk of miscalculation** (Fcaron. 1995). Alternatively, **even a relatively certain redistribution of power could lead to a permissive environment for conflict as a rising power may seek to challenge a declining power** (Werner. 1999). Separately. Pollins (1996) also shows that global economic cycles combined with parallel leadership cycles impact the likelihood of conflict among major, medium and small powers, although he suggests that the causes and connections between global economic conditions and security conditions remain unknown. Second, on a dyadic level. Copeland's (1996. 2000) theory of trade expectations suggests that 'future expectation of trade' is a significant variable in understanding economic conditions and security behaviour of states. He argues that interdependent states arc likely to gain pacific benefits from trade so long as they have an optimistic view of future trade relations. However, **if the expectations of future trade decline, particularly for difficult to replace items such as energy resources, the likelihood for conflict increases, as states will be inclined to use force to gain access to those resources.** Crises could potentially be the trigger for decreased trade expectations either on its own or because it triggers protectionist moves by interdependent states.4 Third, **others have considered the link between economic decline and external armed conflict at a national level**. Mom berg and **Hes**s (2002) **find a strong correlation between internal conflict and external conflict, particularly during periods of economic downturn**. They write. **The linkage, between internal and external conflict and prosperity are strong and mutually reinforcing**. **Economic conflict lends to spawn internal conflict, which in turn returns the favour.** Moreover, **the presence of a recession tends to amplify the extent to which international and external conflicts self-reinforce each other** (Hlomhen? & Hess. 2(102. p. X9> **Economic decline has also been linked with an increase in the likelihood of terrorism** (Blombcrg. Hess. & Wee ra pan a, 2004). **which has the capacity to spill across borders and lead to external tensions**. Furthermore, **crises generally reduce the popularity of a sitting government. "Diversionary theory" suggests that, when facing unpopularity arising from economic decline, sitting governments have increased incentives to fabricate external military conflicts to create a 'rally around the flag' effect.** Wang (1996), DcRoucn (1995), and Blombcrg. Hess, and Thacker (2006) find supporting evidence showing that economic decline and use of force arc at least indirecti) correlated. Gelpi (1997). Miller (1999). and Kisangani and Pickering (2009) suggest that Ihe tendency towards diversionary tactics arc greater for democratic states than autocratic states, due to the fact that democratic leaders are generally more susceptible to being removed from office due to lack of domestic support. DeRouen (2000) has provided evidence showing that periods of weak economic performance in the United States, and thus weak Presidential popularity, are statistically linked lo an increase in the use of force. In summary, rcccni **economic scholarship positively correlates economic integration with an increase in the frequency of economic crises, whereas political science scholarship links economic decline with external conflict** al systemic, dyadic and national levels.' This implied connection between integration, crises and armed conflict has not featured prominently in the economic-security debate and deserves more attention.

**MLPs solve job creation, and investment, which bolsters the economy**

**Congressional Documents and Publications 6-7-12**

[US senate documents news release, “Senators Coons, Moran introduce bill to spark investment in renewable energy projects: Sen. Christopher A. Coons (D-DE) News Release.” Accessed online via proquest] /Wyo-MB

Doug Sims, Natural Resources Defense Council: "NRDC strongly endorses **the MLP** Parity Act. The tax code **currently enables** **the** well-established **fossil fuel industry** to have this financing advantage **while denying its use for** the newer, **cleaner forms of energy** that Americans want and need to encourage. That makes no sense. **Master Limited Partnerships should be one of the tools available to develop clean, renewable energy. MLPs provide a low risk way for Main Street to invest in renewable energy. This will create jobs and new investment opportunities** while reducing pollution. Sen. Coons is right to propose this forward-looking and fair-minded step to ensure that the today's clean, domestic energy sources have the same opportunities to succeed as the fossil fuel sources of the past."¶ Denise Bode, CEO, American Wind Energy Association: "We commend Senator Coons for his leadership in promoting the eligibility of master limited partnerships (MLPs) to include renewable energy projects. America's wind energy sector is a success story that has proven its strength by recruiting $15.5 billion in annual investment in America's energy infrastructure in recent years despite short-lived policy certainty. **MLPs work well for conventional energy infrastructure and will work best to spur more renewable energy investment and job creation if structured properly to match renewable tax incentives.** We look forward to working with Senator Coons to enable wind power developers to efficiently utilize MLP structures."¶ Judith Albert, executive director, Environmental Entrepreneurs: "The members of Environmental Entrepreneurs are supportive of Sen. Coons' MLP Parity Act. This bill would allow renewable energy companies access to a financing structure - **Master Limited Partnerships** - that has long been available to the fossil fuel industry. Access to this structure **will expand the sources of private capital that renewable energy companies can tap and reduce the cost of financing new, job-creating projects**. If passed, **this important measure would be a significant step toward continued development of clean, renewable energy."**

**1AC – Solvency**

**Plan solves—expanding MLP’s to renewable energy is key to spur investment and development of wind technology**

**Mormann and Reicher, 6-2-12**

[Felix and Dan, NYT editorial staff, “How to Make Renewable Energy Competitive.” The New York Times. (June 2, 2012): News: pNA(L), Accessed online via academic onefile] /Wyo-MB

Two **financial mechanisms** that have driven investment in traditional energy projects -- real estate investment trusts and master limited partnerships -- **could**, with some help from Washington, **be extended to renewable energy projects to lower their cost and make America's energy future cleaner, cheaper -- and more democratic**.¶ Federal support for renewable energy today consists primarily of two tax breaks: tax credits and accelerated depreciation rates. But both tools have a very limited reach. Only investors with hefty tax bills, typically big banks or corporations, can exploit them to reduce their tax burden. Most potential investors, including tax-exempt pension funds and, importantly, retail investors trading stocks, don't have big enough tax bills to exploit the break. As a result, the few remaining players whose considerable tax bills place them in the market for tax breaks are able to demand returns of up to 30 percent for investing in renewable energy projects -- an investment known as ''tax equity.''¶ There are **better options**. They may sound wonky, but they **could prove revolutionary**.¶ Real estate investment trusts, or REITs, which are traded publicly like stocks, could tap far broader pools of capital to vastly lower the cost of financing renewable energy. REITs have a market capitalization of over $440 billion while paying shareholders average dividends below 10 percent -- roughly a third of the cost of tax equity investments for renewable energy.¶ **Master limited partnerships carry the fund-raising advantages of a corporation: ownership interests are publicly traded and offer investors the liquidity, limited liability and dividends of classic corporations. Their market capitalization exceeds $350 billion**. With average dividends of just 6 percent, **these investment vehicles could substantially reduce the cost of financing renewables.**¶ But **current law makes using both of these investment vehicles for renewable energy difficult if not impossible. Washington could help** in two ways. **First,** the Internal Revenue Service needs to clarify the eligibility of renewable power generation for REIT financing. Second, **Congress needs to fix a bizarre distinction in the tax code that bars master limited partnerships from investing in ''inexhaustible'' natural resources like the** sun and **wind, while allowing investments in exhaustible resources like coal and natural gas**. In 2008, as surging gasoline prices were infuriating American voters, Congress amended the tax code to enable master limited partnerships to invest in alternative transportation fuels like ethanol. **We should treat power sources, like wind and solar farms, similarly**.¶ There is hope. Senator Chris Coons, Democrat of Delaware, plans to introduce a bill to allow master limited partnership investment in renewable energy. **This approach is preferable** **to a recent proposal** by Senator Bernard Sanders, independent of Vermont, and Representative Keith Ellison, Democrat of Minnesota, **to eliminate this investment option for fossil-fuel projects**. Both moves **would level the playing field between conventional and renewable energy**, but the Coons bill does so by **promoting**, rather than limiting, **economic growth across the energy industry**.¶ **These approaches could help renewable energy projects reduce their financing costs up to fivefold**. **These cost improvements could significantly reduce the price of renewable electricity and, over time, erase the need for costlier subsidies**. Of course, **making renewable energy eligible for master limited partnership** and REIT financing **would amount to a new kind of subsidy**, **because both are exempt from income tax**. Indeed, some **members of Congress fear that expanding master limited partnerships will erode the federal tax base. We don't think so. Investors in master limited partnerships** and REITs **still pay taxes on dividends**. Moreover, **these investments would most likely bring many more renewable energy projects online, actually raising overall tax revenue**.

**And the federal government is key, changing MLP structure creates a stable regulatory environment**

**Freed and Stevens 11**

(Josh and Mae, Freed is the Vice President of the Third Way Clean Energy Program and served for more than a decade as a political strategist for national, federal and local campaigns and was a senior staffer on Capitol Hill, Stevens is a Policy Advisor for the Third Way Clean Energy Program, Third Way, “A Small Tax Change, Big Clean Energy Results,” December 2011, <http://content.thirdway.org/publications/475/Third_Way_Idea_Brief_-_A_Small_Tax_Change_Big_Clean_Energy_Results.pdf//wyo-mm>)

Moreover, the economic downturn that began in 2008 has made it difficult for companies to find tax equity. First, the tax equity market itself has been decimated. The banks and financial institutions that typically provided these funds are themselves in financial straits and no longer need or seek tax equity. **A report by the U.S. Partnership for Renewable Energy Finance estimated that, while the tax equity market is beginning to rebound, it is still barely half the size it was in 2007**. 12 Second, the **lack of consistent federal government policy is making it** almost **impossible for investors to anticipate what the tax and regulatory environment for tax equity funded projects will be**. Understandably, **they are reluctant to commit funds that will be illiquid for a long period.** **As a result, developers must look to commercial banks and other commercial lenders** for “commercial debt.” **Commercial lenders don’t require an equity stake in a project and generally seek lower returns** on their funds, but they are willing to take these lower returns because these projects are much less risky. Typically, debt providers want all the permitting, equity raises, construction plans, intellectual property resolutions, and other legal issues completed and pledged as collateral before they will make their loan. **This is, understandably, difficult for innovative energy companies to provide**.