

Why Climate Change Matters

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For *Jobs, Low-income Communities*, Long-Term Solutions towards *Energy Independence*, and the needed transition to a *Clean Energy Future*

Articles of Interest :

- UN Intergovernmental Panel on Climate Change ([IPCC](#)) 2007 Report. [1]
- "Carbon Output Must Near Zero To Avert Danger, New Studies Say," [Washington Post](#), Mar. 10, 2008. [2]
- "A Convenient Untruth," [Vanity Fair](#), May 2007. [3]
- "Farewell, Fair Weather" [New York Times](#). Charles M. Blow, May 31, 2008 [4]
- "Rich, poor and climate change," [CNN](#), Feb. 18, 2008 [5]
- "Clean Energy and Jobs: A comprehensive approach to climate change and energy policy," [Economic Policy Institute](#), 2002 [6]
- "Green-Collar Jobs in America's Cities: Building Pathways Out of Poverty and Careers in the Clean Energy Economy," [Apollo Alliance](#), et al., 2008 [7]

The Global Threat of Climate Change

- More than 130 people died in CA during a summer heat wave in 2006, when average temperatures in the U.S. were 2.2 degrees F above the 20th Century mean. [8]
- According to the February 2007 report by the United Nations Intergovernmental Panel on Climate Change (IPCC), global surface temperatures have increased about 1.4 degrees Fahrenheit over the last century... *Science* magazine analyzed 928 peer-reviewed scientific papers on global warming and not a single one challenged the scientific consensus that the Earth's temperature is rising due to human activity. [9]
- "By 2030, emissions of greenhouse gases will rise by 57% compared to current levels, leading to a rise in Earth's surface temperature of at least three degrees Celsius (5.4 degrees Fahrenheit), the International Energy Agency (IEA) said on Nov. 7." [10]
- With rising temperatures, global warming manifests itself with a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences (which has already risen 4-8 inches over the past century, and could raise 16-23 feet, submerging numerous coastal cities depending upon the disappearance of certain ice sheets) [11], the exacerbation of air quality problems, increased death from heat and insect-borne diseases, damage to the marine ecosystems and the natural environment, an increase in the incidences of infectious diseases, asthma, and other health-related problems, loss of the Sierra snow pack resulting in drastic water supply problems, widespread drought and problems growing crops, more wildfires, and a dramatic increase in state energy needs, which further fuels climate change. [12]
- "The impacts of global warming are already being felt in California. The Sierra snowpack, an important source of water supply for the state, has shrunk 10 percent in the last 100 years. It is expected to continue to decrease by up to 25 percent by 2050. World-wide changes are causing sea levels to rise – about 8 inches of increase has been recorded at the Golden Gate Bridge over the past 100 years – threatening low coastal areas with inundation and serious damage from storms." [13]
- "We are now firmly ensconced in the Age of Extreme Weather. According to the Center for Research on the Epidemiology of Disasters, there have been more than four times as many weather-related disasters in the last 30 years than in the previous 75 years. The United States has experienced more of those disasters than any other country." [14]

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The Urgency to Act

- "The international community may have as little as a decade to bring greenhouse gases under control or risk catastrophic global warming that places millions of people at risk, warns a group of the world's leading climate scientists," in a declaration released Dec. 6, 2007 in Bali, Indonesia. [15]
- "The task of cutting greenhouse gas emissions enough to avert a dangerous rise in global temperatures may be far more difficult than previous research suggested, say scientists who have just published studies indicating that it would require the world to cease carbon emissions altogether within a matter of decades... [The scientists] are delivering a simple message: The world must bring carbon emissions down to near zero to keep temperatures from rising further... When it comes to deciding how drastically to reduce greenhouse gas emissions, O'Neill said, 'in the end, this is a value judgment, it's not a scientific question.' The idea of shifting to a carbon-free society, he added, 'appears to be technically feasible. The question is whether it's politically feasible or economically feasible.'" [16]

Jobs & the Economy

- In the Findings and Declarations for California's Global Warming Solutions Act, the Legislature found that: "global warming would cause detrimental effects to some of the state's largest industries, including agriculture, winemaking, tourism, skiing, commercial and recreational fishing, forestry, and the adequacy of electrical power." [17]
- "Community leaders and presidential candidates are talking about the promise of green-collar jobs to serve the planet and the people. We are on the cusp of a major change. We are ready to rebuild American competitiveness and leadership by investing in environmental protection and by investing in our people... The American Solar Energy Society estimates that in 2006 alone, renewable energy and energy efficiency were responsible for \$970 billion in industry revenues and 8.5 million jobs. This number will grow exponentially if our nation commits itself in earnest to reducing carbon emissions and making economy-wide improvements in energy efficiency." [18]
- California's Climate Action Team, comprised of leaders within environmental regulatory agencies in California, calculated that California, the world's 6th largest economy, could increase income by more than \$4 billion and provide 83,000 new jobs with global-warming reduction. [19]
- Remarks of Senator John McCain: "All of us know what is happening to the economy. It is slowing. More than 400,000 people have lost their jobs since December, and the rate of new job creation has fallen sharply... My proposal to help automakers design and sell new generations of cars that don't depend on gasoline will re-invigorate that struggling industry. In the development and manufacture of hybrid, flex-fuel, and electric cars, jobs will grow at auto plants, parts manufacturers, and in the communities that support them. My plan to develop wind and solar power and renewable technologies will drive innovation and create high tech jobs." [20]
- Remarks of Senator Barack Obama: "When all is said and done, my [Energy] plan to invest \$150 billion in alternative energy will create entire new industries, thousands of new businesses, and up to five million new, green jobs that pay well and can't be outsourced... Today, there are waiting lists for fuel-efficient cars. There's an old steel mill in Pennsylvania that has become the home of a new wind turbine factory." [21]
- "Germany has 200 times as much solar energy as Britain. It generates 12% of its electricity from various renewables, compared with 4.6% in Britain. It has created a quarter of a million jobs in renewables - a number that is growing fast." [22]
- "First, the economic costs and benefits of a climate and energy policy depend critically on elements of the policy design. Specifically, costs are reduced and benefits enhanced by returning the revenue from carbon/energy charges through cuts in other taxes, and through more rapid introduction of new energy technologies; these two policies together can yield a net economic benefit. Second, the combination of technology promotion and well-designed policies to offset competitive burdens can reduce the harm to most energy-intensive industries to low or negative levels. Third, consumers and income distribution need not be harmed and can even benefit. Finally, substantial compensation can be provided to affected workers and industries without negating the general economic benefit." [23]
- "Offsets" of emissions reductions abroad means export of jobs.

Low-income Communities & Environmental Justice

- Climate change particularly affects people with compromised health and financial insecurity, and particularly affects people of color, low-income, and indigenous communities. These communities are already disproportionately impacted by pollution, fundamentally linking global climate change to issues of environmental justice.
- "The general dialogue on adapting to a world affected by climate change by definition excludes the world's poorest people. And yet it's the world's poorest who are often put forward as the ones who are likely to feel the affects of climate change the most and are likely to be able to deal with them the least. ... 1 billion of the poorest people on Earth will lose their livelihoods to desertification (UNEP). More than 200 million environmental refugees will be created by 2050, as a direct result of rising sea levels, erosion and agricultural damage (World Development Movement). ... in Los Angeles more than 71 percent of African Americans live in 'highly polluted areas,' compared to 24 percent of whites. ... An independent study last year in the UK showed that the number of households being forced to decide between food and heating has almost doubled in just two years. This, over a period when electricity prices jumped by 39 percent and gas prices by 61 percent." [24]
- "'The biannual UN Human Development Report, issued at the end of November, reported that 1 out of every 19 people in the so-called developing world was affected by a climate-related disaster between 2000 and 2004. The figure for people in the wealthiest (OECD) countries was 1 out of every 1,500... Those who have benefited the least from the unsustainable pace of economic growth and expansion over the past five or six decades are facing a future of suffering and dislocation unlike any the world has ever seen..." [25]
- "The consumption of coal, petroleum, and natural gas has introduced a number of unintended side effects throughout the world... Coal is the nation's primary source of electricity, but is also the principal source of sulfur dioxide that causes acid rain, atmospheric mercury, and other pollutants. Combustion of fossil fuels is the principal source of air pollution and a number of other environmental problems." [26]
- Policies that directly and significantly reduce emissions to address global warming could move our society away from the fossil fuel infrastructure, providing co-benefits to the poor and communities of color around the world.



Virtually no polluting source emits carbon alone

Long-term Solutions towards Energy Independence

- “In 2005, the year of Hurricane Katrina, the estimated damage from storms in the United States was \$121 billion. That is \$39 billion more than the 2005 supplemental spending bill to fight the wars in Afghanistan and Iraq. About \$3 billion has been allocated to assist farmers who suffer losses because of droughts, floods and tornadoes among other things. And, a recent report in The Denver Post said the Forest Service plans to spend 45 percent, or \$1.9 billion, of its budget this year fighting forest fires. This surge in disasters and attendant costs is yet another reason we need to declare a coordinated war on climate change akin to the wars on drugs and terror. It’s a matter of national security.” [27]
- Remarks of Senator Barack Obama: “The urgency of this challenge is clear to anyone who’s tried to fill up their tank with gas that’s now over \$4 a gallon. It’s clear to the legions of scientists who believe that we are nearing a point of no return when it comes to our global climate crisis. And with each passing day, it is clear that our addiction to fossil fuels is one of the most serious threats to our national security in the 21st century... [An] immediate and direct security threat comes from our dependence on foreign

oil. The price of a barrel of oil is now one of the most dangerous weapons in the world... We have heard promises about energy independence from every single U.S. President since Richard Nixon. We’ve heard talk about curbing our use of fossil fuels in nearly every State of the Union address since the oil embargo 1973... Achieving energy independence is one of the greatest challenges we’ve ever faced, and it will be the great project of our generation... What we need are real ideas to give hardworking Americans relief from high gas prices, and serious, long-term investments to permanently reduce our dependence on foreign oil... But to truly reduce our long-term dependence on foreign oil, my plan will fast-track \$150 billion of investment in a clean energy fund to help create the fuel-efficient cars and alternative sources of energy that will secure this nation and jump-start a green economy.” [28]

- Remarks of Senator John McCain: “[N]o economic challenge today is more urgent than strategic energy independence. Our dangerous dependence on foreign oil has been thirty years in the making, and was caused by the failure of politicians in Washington to think long-term about the future of the country.” [29]

“[N]o economic challenge today is more urgent than strategic energy independence.” - Senator John McCain

Transition to a Clean Energy Future

- “As the current generation of children now in school move into their productive adult years – 2020 and beyond – the need for alternate energy sources and ever-increasing requirements of energy efficiency will follow them. In many cases, developing new technology in compressed timeframes will resemble the concept of ‘inventing to schedule’ that allowed the Apollo Program to make such rapid advances in America’s successful effort to put a man on the moon. It is one of the goals of this Draft Scoping Plan [under California’s AB32 Global Warming Solutions Act] to help establish and support long range approaches and institutions that will provide the continual search for new energy solutions, and their rapid development and deployment into the marketplace.” [30]
- “A project called Nevada Solar One got switched on in a place called Boulder City, Nevada... even though it was the first plant of its kind to be built in 17 years... It generates 64MW of electricity and powers more than 14,000 homes... The first thing Duprey has to say about Solar One is that it pro-

duces peak power. Its output is maximum when demand is highest, when power is most expensive... In this one deal, the state was able to meet its renewable portfolio standard -- 5% by 2015... ‘We created 200 jobs in the US through Acciona projects like Nevada Solar One,’ Duprey said. ‘And that’s just in our company. There’s a ripple effect when you count suppliers and construction. It’s a great way to stimulate the economy.’” [31]

- A recent world wind-mapping study suggests that sufficient wind power is available over land to satisfy all electric and vehicle power demand worldwide, up to 5 times over. “Wind and solar power could satisfy all electric power and non-electric power requirements worldwide and simultaneously address climate change and air quality, eliminating the millions of cases of asthma and respiratory disease and hundreds of thousands of deaths worldwide each year due to fossil fuels.” [32]

“Going green may be the largest economic opportunity of the 21st century.” - Time Magazine [33]



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*“[A]lmost no scientist doubts that global warming is here, that man-made greenhouse gases are to blame, or that if we don’t cut back on those gases fairly soon we’ll be in a heap of trouble.” -
Vanity Fair [34]*

Endnotes:

[1] United Nations Intergovernmental Panel on Climate Change (IPCC), “Climate Change 2007 Synthesis Report: Summary for Policymakers,” 2007, http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf [2] “Carbon Output Must Near Zero To Avert Danger, New Studies Say,” *Washington Post*, Mar. 10, 2008, <http://www.washingtonpost.com/wp-dyn/content/article/2008/03/09/AR2008030901867.html> [3] Michael Shnayerson, “A Convenient Untruth,” *Vanity Fair*, May 2007, <http://www.vanityfair.com/politics/features/2007/05/skeptic200705> [4] Charles M. Blow, “Farewell, Fair Weather,” *New York Times*, May 31, 2008, http://www.nytimes.com/2008/05/31/opinion/31blow.html?_r=2&scp=1&sq=Farewell%2C+Fair+Weather&st=nyt&oref=slogin&oref=slogin [5] “Rich, poor and climate change,” *CNN*, Feb. 18, 2008, <http://edition.cnn.com/2008/BUSINESS/02/17/eco.class/> [6] James P. Barrett, et. al., “Clean Energy and Jobs: A comprehensive approach to climate change and energy policy,” Economic Policy Institute, 2002, <http://www.rprogress.org/publications/2002/Clean%20Energy%20and%20Jobs.pdf> [7] “Green-Collar Jobs in America’s Cities: Building Pathways Out of Poverty and Careers in the Clean Energy Economy,” Apollo Alliance, Green For All, 2008, <http://www.apolloalliance.org/downloads/greencollarjobs.pdf> [8] John Kerry, Teresa Heinz Kerry, *This Moment on Earth*, Public Affairs, New York, 2007, p. 123. [9] Kerry, p. 120. [10] “Global Warming Gases Set to Rise by 57%” *Industry Week*, <http://www.industryweek.com/ReadArticle.aspx?ArticleID=15285> [11] Kerry, p. 138. [12] See California Air Resources Board (CARB) Draft Scoping plan, p. 6, <http://www.arb.ca.gov/cc/scopingplan/document/draftscopingplan.pdf> [13] *Id.* [14] “Farewell, Fair Weather,” *New York Times*, May 31, 2008 [15] Declaration released Dec. 6, 2007 in Bali, Indonesia, *Toronto Globe and Mail*, <http://www.ccrcc.unsw.edu.au/news/2007/Bali.html> [16] “Carbon Output Must Near Zero To Avert Danger, New Studies Say,” *Washington Post*, Mar. 10, 2008 [17] CARB Draft Scoping plan, p. 6. [18] Apollo Alliance, p. 1. [19] John Doerr, “California’s Global-Warming Solution,” *Time Magazine*, Sept. 3, 2006, <http://www.time.com/time/magazine/article/0,9171,1531324-1,00.html> [20] John McCain, “McCain’s Remarks in Portsmouth, Ohio,” *RealClearPolitics*, Jul. 9, 2008, http://www.realclearpolitics.com/articles/2008/07/mccains_remarks_in_portsmouth.html [21] Remarks of Senator Barack Obama, “A Secure Energy Future,” July 11, 2008, <http://thepage.time.com/transcript-of-obamas-energy-remarks-in-dayton-ohio/> [22] “Germany sets shining example in providing a harvest for the world,” *The Guardian*, Jul. 23, 2007, <http://business.guardian.co.uk/print/0,,330239720-108725,00.html> [23] James P. Barrett, et. al., “Clean Energy and Jobs: A comprehensive approach to climate change and energy policy,” p. 3. [24] “Rich, poor and climate change,” *CNN*, Feb. 18, 2008 [25] Brian Tokar, “Global Warming and the Struggle for Justice,” *Z Magazine*, Jan. 1, 2008, <http://zcommunications.org/zmag/viewArticle/16106> [26] James P. Barrett, et. al., “Clean Energy and Jobs: A comprehensive approach to climate change and energy policy,” p. 4 [27] “Farewell, Fair Weather,” *New York Times*, May 31, 2008 [28] Remarks of Senator Barack Obama, “A Secure Energy Future” [29] John McCain, “McCain’s Remarks in Portsmouth, Ohio” [30] CARB Draft Scoping Plan, p. 73. [31] Sassoon, David, “A Solar CEO’s Beef with Washington Lawmakers,” *Solve Climate*, Mar. 5, 2008, <http://solveclimate.com/blog/20080305/solar-ceos-beef-washington-lawmakers> [32] Jacobson, Mark, “Addressing Global Warming, Air Pollution Health Damage, and Long-Term Energy Needs Simultaneously,” Dept. of Civil and Environmental Engineering Stanford University, May 9, 2006, p. 2; 8, <http://www.stanford.edu/group/efmh/jacobson/> [33] “California’s Global-Warming Solution,” *Time Magazine*, Sept. 3, 2006 [34] “A Convenient Untruth,” *Vanity Fair*, May 2007.