Testimony of
Dr. E. Calvin Beisner
to the Subcommittee on Energy and Environment
of the Committee on Energy and Commerce
of the United States House of Representatives
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Mr. Chairman, members of the Committee, thank you for inviting me to testify today about the ethics of climate change policy, particularly as it affects energy costs and their impact on the poor. I speak to you as a theologian and pastor, a former professor of social ethics, and the national spokesman of the Cornwall Alliance for the Stewardship of Creation, a network of religious leaders, scientists, and economists dedicated to bringing Biblical world view, theology, and ethics together with excellent science and excellent economics to address simultaneously the challenges of economic development for the very poor and effective stewardship of creation. Sadly, we often find that our dual aims require us to warn of unintended negative consequences for the poor of policies touted to protect the environment.

In Job 24, Job mourned the fact that often in his day the powerful pushed the poor aside, making them hide themselves because of their nakedness. Psalm 72 describes a just king, one like the coming Messiah, as having compassion on the poor and needy and saving them. When the Apostle Paul wrote to the Galatians about meeting with the other apostles early in his ministry, he said, "They only asked us to remember the poor–the very thing I also was eager to do" (Galatians 2:10). That has been my motivation for over twenty-five years of study and writing on developmental and environmental economics, demonstrated in four published books, many articles and conference presentations, and fifteen years of teaching at the collegiate and graduate levels. Both the Old and the New Testaments insist that rulers protect the poor from harm, following the example of Jahweh, who, Psalm 140:12 tells us, "will maintain the cause of the afflicted and justice for the poor."

Yet often the very people who are responsible to protect the poor make laws that, whether intentionally or not, harm them. “Woe to those who enact evil statutes and to those who constantly record unjust decisions,” God said through the Prophet Isaiah, “so as to deprive the needy of justice and rob the poor of My people of their rights . . .” (Isaiah 10:1–2). The God of Scripture is not surprised by a “throne of destruction” that “devises mischief by decree” (Psalm 94:20).

I am convinced that policies meant to reduce alleged carbon dioxide-induced global warming will be destructive, devising mischief by decree. As Lord Monckton points out in his own testimony today, the best, most recent empirical scientific discoveries have shown that even the mid-range scenarios of the IPCC exaggerate the warming effect of increased CO2 by at least seven times; atmospheric CO2 concentration is rising at a fraction of the rate forecast by the IPCC; and Earth has been cooling for the last seven years at a rate of 3.5°F per century.

These findings, opposite the expectations of the IPCC, are consistent with the Biblical world view. The naturalist, atheistic world view sees Earth and all its ecosystems as the result of chance processes and therefore inherently unstable and fragile, vulnerable to enormous harm from tiny causes. The Biblical world view sees Earth and its ecosystems as the effect of a wise God’s creation and providential preservation and therefore robust, resilient, and self-regulating–like the product of any good engineer who ensures that the systems he designs have positive and negative feedback mechanisms to balance each other and prevent small perturbations from setting off a catastrophic cascade of reactions.

The IPCC’s work rests on the naturalist, atheistic world view. Every one of its computer climate models, without exception, assumes that positive feedback mechanisms vastly outnumber and outweigh negative feedbacks, which is the root of fears of a runaway greenhouse effect and a

“tipping point” beyond which there is no return.

But empirical observation–the very soul of scientific method–has shown otherwise. The IPCC exaggerates the rate of carbon buildup because it doesn’t recognize the capacity of Earth’s plants and oceans to absorb vast amounts of carbon from the atmosphere and turn it into the building blocks of life. But that is precisely what has been happening, with wild and cultivated plants growing larger and more numerous because of increased CO2, and raising crop yields (and so lowering food prices. And the IPCC exaggerates the warming effect of CO2 in the atmosphere largely because its computer models all assume that clouds are a positive feedback–that they respond to rising surface temperature by trapping still more heat. But University of Alabama climatologist Roy Spencer, using data from NASA satellites, has shown the opposite: warming clouds diminish as surface temperature rises, allowing more heat to radiate out to space. The system works like a thermostat, keeping surface temperature within a narrow range well suited to human and other life on Earth.

The Biblical world view prepares us for just such findings. When God finished His creation, “God saw all that He had made, and behold, it was very good” (Genesis 1:31). Do you think he would have judged a fragile system biased by unidirectional feedbacks toward destruction that way? No, He would not. Indeed, the global destruction of the Flood required His supernatural intervention (Genesis 6–8), after which He promised Himself, “I will never again curse the ground on account of man . . .; and I will never again destroy every living thing, as I have done. While the earth remains, seedtime and harvest, and cold and heat, and summer and winter, and day and night shall not cease” (Genesis 8:21–22)–the repeated pairs of opposites being the poetic device called merism, implying that God had committed Himself to ensuring that all the cycles needed for human (and other) thriving would continue.

Both this Biblical world view and high-quality empirical scientific findings[1] convince me that the fear of catastrophic manmade global warming is mistaken. And it is *tragically mistaken* because it has become the basis of policy proposals that threaten enormous harm to the world's economies

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[1]I have discussed such findings in several papers and articles over the past three years, sometimes with co-authors. These include "An Examination of the Scientific, Ethical, and Theological Implications of Global Warming," written with climatologist Roy Spencer and energy policy analyst Paul Driessen (November, 2005); "A Call to Truth, Prudence, and Protection of the Poor: An Evangelical Response to Global Warming," written with Spencer, Driessen, and environmental economist Ross McKitrick (July 2006); "Scientific Orthodoxies, Politicized Science, and Catastrophic Global Warming: Challenges to Evangelicals Navigating Rough Waters in Science and Policy" (November 2006); "Important Developments on Global Warming in 2006" (December 2006); "Global Warming: Why Evangelicals Should Not Be Alarmed" (October 2007); "Some Theological Perspectives on the Climate Change Debate" (November 2007); "Deep Ecology, Neo-Paganism, and the Irrationalism of Global Warming Hysteria" (February 2008); the "Cornwall Stewardship Agenda," written with McKitrick, Spencer, Vice President of the Ethics and Religious Liberty Commission of the Southern Baptist Convention, Bryan College President Stephen Livesay, Grove City College Associate Professors of Economics Tracy Miller and Shawn Ritenour and Professor of Religion David Gordon, Calvin College Associate Professor of Economics Abel Abadeer, Eastern College Professor of Economics John Stapleford, University of Delaware Center for Climatic Research Director and climatologist David Legates, Westminster Seminary Emeritus Professor of New Testament Peter Jones, and Southern Baptist Theological Seminary Dean of the School of Theology Russell Moore (April 2008). Some of the more important books presenting scientific evidence against the hypothesis of catastrophic, CO2-induced global warming are Christopher Essex and Ross McKitrick's *Taken By Storm: The Troubled Science, Policy, and Politics of Global Warming*, rev. ed. (2008); Howard C. Hayden, *A Primer on CO2 and Climate* (2007); *The Global Warming Debate: Science, Economics, and Policy: Proceedings of a Conference Sponsored by the American Institute for Economic Research* (2007); Nigel Lawson, *An Appeal to Reason: A Cool Look at Global Warming* (2008); Patrick J. Michaels, *Meltdown: The Predictable Distortion of Global Warming by Scientists, Politicians, and the Media* (2004); Patrick J. Michaels and Robert C. Balling, Jr., eds., *The Satanic Gases: Clearing the Air about Global Warming* (2000); Patrick J. Michaels, ed., *Shattered Consensus: The True State of Global Warming* (2005); S. Fred Singer and Dennis T. Avery, *Unstoppable Global Warming Every 1,500 Years*, rev. ed. (2008); Willie Wei-Hock Soon and Steven H. Haskell, *The Maunder Minimum and the Variable Sun-Earth Connection* (2003, 2007); Henrik Svensmark, *The Chilling Stars:A New Theory of Climate Change* (2007). And some of the more important recent articles in the field are S. E. Schwartz, (2007), "Heat capacity, time constant, and sensitivity of the Earth's climate system," *J. Geophys. Res.*, 112, doi:10.1029/2007JD008746 (online at http://www.ecd.bnl.gov/steve/pubs/HeatCapacity.pdf; R. W. Spencer, W. D. Braswell, J. R. Christy, and J. Hnilo (2007), "Cloud and radiation budget changes associated with tropical intraseasonal oscillations," *Geophys. Res. Lett.*, 34, L15707, doi:10.1029/2007GL029698; R. W. Spencer and W.D. Braswell (2008a), "Satellite measurements reveal a climate system less sensitive than in models," *Geophys. Res. Lett.*, submitted (This paper was rejected by GRL in late 2008. Some of the material contained therein was to be submitted to *Journal of Climate* in January 2009 as part of a much more comprehensive paper.); R. W. Spencer and W.D. Braswell (2008b), "Potential biases in cloud feedback diagnosis: A simple model demonstration," *J. Climate*, November 1; Roy W. Spencer, "Global Warming as a Natural Response to Cloud Changes Associated with the Pacific Decadal Oscillation," 2008 (online at http://www.drroyspencer.com/research-articles/global-warming-as-a-natural-response/); Roy W. Spencer, "Satellite and Climate Model Evidence Against Substantial Manmade Climate Change," 2008 (online at http://www.drroyspencer.com/research-articles/satellite-and-climate-model-evidence/); Roy. W. Spencer, *Climate Confusion: How Global Warming Hysteria Leads to Bad Science, Pandering Politicians and Misguided Policies that Hurt the Poor* (New York: Encounter Books, 2008); Henrik Svensmark and Nigel Calder, *The Chilling Stars: A New Theory of Climate Change* (Cambridge, UK: Icon Books, 2007); S. Fred Singer and Dennis T. Avery, *Unstoppable Global Warming–Every 1,500 Years*, 2d ed. (Lanham, MD: Rowman & Littlefield, 2008); Roy W. Spencer, *The Great Global Warming Bungle* (forthcoming, 2009).

in general and especially to the world's poor. For that reason, I happily join with Lord Monckton in saying, "The right response to the non-problem of 'global warming' is to have the courage to do nothing."

I am aware that the Stern Review, produced for the British government, argues that the costs of doing nothing will exceed those of fighting warming. But it reaches those conclusions by assuming the most extreme temperature and impact scenarios of the IPCC, ignoring contrary scientific evidence, minimizing the costs of mitigation, and, as Yale's Sterling Professor of Economics William Nordhaus[2] and other economists the world over have noted in derision, assuming a zero time discount rate to compare the values of present and future costs. If you doubt the buffoonery of a zero time discount rate, see me afterward; I'd like to borrow a million dollars for a hundred years at zero interest.

The most thorough comparisons between the costs and benefits of temperature mitigation, on the one hand, and adaptation through economic growth, on the other, have concluded resoundingly that adaptation wins, hands down.[3] The Copenhagen Consensus, with contributions by many scientists and economists, led by five Nobel laureates, has found that micronutrient supplements, freer trade, immunization, lowering the price of schooling, malaria prevention and treatment, and eight other measures would all yield far better benefit/cost ratios than research and development of low-carbon energy technologies, and thirteen other policies would outperform either R&D and mitigation of global warming combined or mitigation by itself.[4] Granted opportunity cost, money spent to mitigate temperature increase cannot be spent on the other, more effective policies, and its result is a net loss

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[2]William Nordhaus, *A Question of Balance: Weighing the Options on Global Warming Policies* (2008).

[3]Nordhaus, *A Question of Balance*; Bjørn Lomborg, *Cool It: The Skeptical Environmentalist's Guide to Global Warming* (2007); Lomborg, ed., *Global Crises, Global Solutions* (2004).

[4]http://www.copenhagenconsensus.com/Default.aspx?ID=953

to human and ecosystem well being.

This shouldn't be surprising. Economic development allows human beings to thrive not just in temperate zones but in climates running the gamut from extreme cold (the Arctic) to extreme heat (the tropics). The notion that for some reason we must keep global average temperature–which absolutely no one ever experiences–within a particular range lest devastation ensue is blind to this fact.

What concerns me most at present, however, is not the impact of climate policy on the economy generally, but its impact on America's and the world's poor. Any policy that forces us to switch from lower-cost fuels to higher-cost fuels–no matter which ones they are, and no matter what their real or alleged effect on global temperature might be–is a policy to harm the poor. If we subsidize production of grain ethanol (which full life-cycle analysis shows releases about as much CO2 into the atmosphere per unit of energy delivered as do oil and coal), we not only must support the subsidy by taxation but also diminish the supply of grain for food, contributing, as we did in late 2007 through 2008, to higher food prices and resulting hunger and starvation. If we tax CO2 emissions, whether directly or via cap-and-trade, we raise the price of energy and so the prices of all things made and transported by energy–which is essentially everything.

But this is particularly devastating to the poor, for whom energy constitutes a higher proportion of spending than for the middle class and the rich. In the United States, estimates of the proportion of household budgets spent on energy by the poor range around 25 percent; for the middle class and wealthy, down around 10 percent. Every increase in energy prices therefore raises the poor's cost of living more, proportionately, than the wealthy's. It is, in fact, a highly regressive tax.

The impact on the poor outside America is much worse. Forcing the poor in the developing

world to forgo the use of carbon-based fuels–coal, oil, and natural gas, the cheapest fuels per kilowatt-hour of energy delivered–means delaying by decades or generations the time when they can afford electricity for their homes and industries, and thus delays for similar periods the time

- when they can refrigerate their food and so protect it from spoilage and themselves from undernutrition for lack of food, and diseases from spoiled food;
- when they can heat their homes with clean electricity rather than by open fires of wood and dried dung, the smoke from which causes respiratory diseases that reduce the amount of work they can do and so reduce their incomes, and kill 2 to 4 million every year;
- when they can air condition their homes and so close windows and doors, keeping out insects that spread malaria, dengue fever, and other diseases that kill millions every year and disable scores to hundreds of millions;
- when they can power their tools and factories by electricity, multiplying their productivity and hence increasing their earnings and consequently their ability to afford food, clothing, shelter, health care, transportation, and many other basic needs, not to mention the pleasures of the middle class and wealthy;
- when they can air condition their workplaces, lengthening their effective working hours and hence their earning potential during hot months.
- Perhaps most ironically of all, delaying economic development because of concerns to protect the environment also means delaying the time when developing countries can afford to spend more of their incomes protecting and restoring creation. A clean, healthful, beautiful environment is a costly good, and the wealthier people become, the more of it they can afford, which is why–contrary to the standard view of the environmentalist movement–economic

development is the friend, not the foe, of environmental improvement.[5]

Inexpensive fossil fuels contributed enormously to the economic development of the wealthy countries of the world. To demand that poor countries forgo their use is to deprive them of that benefit. It is, I insist, a grave injustice. It is the demand of wealthy, powerful elites at the expense of the vulnerable poor. It is every bit as much a case of imperialism as was the colonialism of the seventeenth- through mid-twentieth centuries and will slow development. As the Cornwall Alliance put it in our *Call to Truth, Prudence, and Protection of the Poor: An Evangelical Response to Global Warming* (see Appendix):[6]

> by condemning the world's poor to slower economic development by raising energy prices, the ECI asks the poor to give up or at least postpone their claims to modern technology that is essential for a better future for themselves and their children. It tells them they must not expect to have fossil fuels, electricity, or even eco-tourism (because jets emit greenhouse gases and cause climate change). Other environmental activists tell them they must not use hydroelectric or nuclear power to generate electricity, because of fears of damming rivers and risks from handling nuclear wastes. So the world's poor must remain indigenous, traditional, and poor–or as Leon Louw has put it, must continue living in "human game preserves," so that affluent Westerners can visit them in their quaint villages.[7]

And as Bjørn Lomborg put it in *Cool It: The Skeptical Environmentalist's Guide to Global Warming*:

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[5]Indur M. Goklany, *The Improving State of the World: Why We're Living Longer, Healthier, More Comfortable Lives on a Cleaner Planet* (Washington: Cato Institute, 2007), Part B: "The Effects of Economic Development and Technological Change on the Environment," pp. 103–234.

[6]Available online at www.CornwallAlliance.org.

[7]For thorough discussion of the destructive impact of much environmental policy originating in the West on the poor in the developing world, see Paul Driessen, *Eco-Imperialism: Green Power Black Death* (Bellevue, WA: Free Enterprise Press, 2003).

In the third world, access to fossil fuels is crucial. About 1.6 billion people don't have access to electricity, which seriously impedes development. Two and a half billion people use biomass such as wood, waste, and dung to cook and keep warm. For many Indian women, searching for wood costs three hours each day, as they sometimes walk more than six miles per day. It also causes excess deforestation. About 1.3 million people–mostly women and children–die each year due to heavy indoor-air pollution. A switch from biomass to fossil fuels would dramatically improve 2.5 billion lives; the cost of $1.5 billion annually would be greatly superseded by benefits of about $90 billion. For both the developed and the developing world, a world without fossil fuels in the short or medium term is a lot like a world gone medieval.[8]

Despite such findings, many environmentalists naively press for the substitution of alternative fuels for fossil fuels in developing countries. Let me address just one example: the common suggestion that the poor in sub-Saharan Africa and other badly underdeveloped places should opt for solar energy for their huts. One easy way to confront the folly of this thinking is simply to ask ourselves this question: If solar energy is such a cost-effective alternative to fossil fuels that the poor of, say, Kenya should use it for their homes, why don't more Americans, who are hundreds of times wealthier than Kenyans, use it to power our homes? The answer is simple: it *isn't* cost-effective by comparison with fossil fuel-generated electricity.

The average price per kilowatt hour charged in the United States to residential electric customers (most of which comes from fossil fuels) in November, 2008, was 11.5 cents.[9] What does it cost to

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[8]Bjørn Lomborg, *Cool It: The Skeptical Environmentalist's Guide to Global Warming* (New York: Alfred A. Knopf, 2007), 156.

[9]Energy Information Administration, "Average Retail Price of Electricity by End-Use Sector, by State," February 13, 2009 (online at http://www.eia.doe.gov/cneaf/electricity/epm/table5_6_a.html).

supply solar photovoltaic energy to a single home? The website Green Economics, at www.greenecon.net, estimates about 38 cents per kWh assuming a $45,000 system with a 5 KW daily capacity and a twenty-year service life.[10] That's more than 10 times the cost per kWh of generating electricity using coal. No wonder so few Americans use solar! It is essentially the luxury hobby of wealthy people with a penchant for ecological trendsetting.

The truth is that no alternative fuels can compete at present with fossil fuels for price. To compel their use in order to reduce carbon dioxide emissions is therefore to raise the price of energy, and of all products made and transported with it, and so to raise the cost of living for everyone. It is particularly to harm the poor. Until someone can come up with a sound ethical justification for such a regressive tax with such fatal consequences, I can only conclude that it is unethical, and that we are morally obligated not to impede access by the poor to abundant, inexpensive fossil fuels. Ladies and gentlemen of the committee, you face a choice: will you be like those Job condemns, who "cause the poor to go about naked without clothing, and [who] take away the sheaves from the hungry" (Job 24:10)? Or will you join Paul and the rest of the Apostles, and "remember the poor" (Galatians 2:10)? I pray you will do the latter.

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[10] "Understanding the Cost of Solar Energy," *Green Econometrics*, August 13, 2007 (online at http://greenecon.net/understanding-the-cost-of-solar-energy/energy_economics.html).

Appendix

Open Letter

Call to Truth, Prudence,

and Protection of the Poor