Statement of the U.S. Chamber of Commerce

ON: EXAMINING GLOBAL WARMING ISSUES IN THE POWER PLANT SECTOR

TO: UNITED STATES SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

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The Chamber's mission is to advance human progress through an economic, political and social system based on individual freedom, incentive, initiative, opportunity and responsibility.

BEFORE THE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS OF THE UNITED STATES SENATE

"Examining Global Warming Issues in the Power Plant Sector"

Testimony of Thomas J. Donohue
President and Chief Executive Officer, U.S. Chamber of Commerce

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Good morning, Chairman Boxer, Ranking Member Inhofe, and members of the Committee on Environment and Public Works. My name is Thomas J. Donohue and I am President and Chief Executive Officer of the U.S. Chamber of Commerce. The Chamber is the world's largest business federation, representing more than three million businesses and organizations of every size, sector, and region. On behalf of the Chamber and its members, I thank you for the opportunity to testify here today.

You have asked me to come before the Committee today to discuss global climate change proposals and their relation to the power plant sector. The Committee should be commended for exploring the impact of the numerous legislative proposals on power plants. If Congress follows through with legislation, but does not carefully consider the impact provisions such as mandatory emissions caps, carbon capture and sequestration, and mandatory renewable portfolio standards will have on industry, the Chamber believes the economic consequences could be severe.

The 110th Congress is performing a balancing act, striving to preserve energy security while also limiting energy use and the fuels to be used for the purpose of addressing climate change. On one hand, Congress seeks to place serious limits on energy exploration, but, on the other, continues to push for energy independence and carbon-constraining climate change legislation. The Chamber is very concerned with Congress' perceived ability to balance these two goals. If energy independence is what we truly want, we can certainly achieve it; we have more than enough energy sources (ranging from coal and oil shale to wind and photovoltaic) that, when used in conjunction with one another, can make the country energy independent, but not any time soon and perhaps not even in this century.[1] However, when we add caveats to how that energy independence must be achieved—such as legislation that reduces greenhouse gas emissions without also funding technology, or with a federally-mandated renewable portfolio standard (RPS), or by limiting oil and gas exploration on federal lands and in the Outer Continental Shelf—the balancing act will give way to one extreme or the other.

What Congress must continue to recognize, as it crafts this legislation, is that electricity is the "juice" that runs our country. And this country will depend on the sustainability of the "juicers"—coal, natural gas, petroleum, nuclear, and hydropower, to

[1] Edmonds, J.A., et al., *Global Energy Technology Strategy: Addressing Climate Change* (May 2007), *available at* http://www.pnl.gov/gtsp/docs/gtsp_2007_final.pdf.

name a few—for the foreseeable future. We simply cannot flip a switch and power our country exclusively on renewable energy sources. (Even if we could—and we cannot—we need energy corridors to move that electricity from rural areas to urban regions, and Congress is taking steps to shut down these corridors as well.) By promoting renewables at the expense of other energy sources, Congress is picking winners and losers—and the losers will be the power plants that generate the electricity to run this great nation.

As you know, many of this country's power companies are members of the Chamber. In fact, several companies joining me today on this panel (Duke Energy, Florida Power & Light, Murray Energy, and Pacific Gas & Electric) are Chamber members, and each has a different view for addressing global climate legislatively. Some advocate for cap-and-trade, RPS, or more nuclear. Others want an international, voluntary program, such as the Asia-Pacific Partnership. For this reason, I believe the best place to begin my discussion of how to address climate change is with the five core principles the Chamber utilizes to evaluate any proposed climate change solution. The Chamber measures all proposed climate change legislation against the following standards:

Does the legislation…

1. Preserve American jobs and the competitiveness of U.S. industry;
2. Provide an international, economy-wide solution, including developing nations;
3. Promote accelerated development and deployment of greenhouse gas reduction technology;
4. Reduce barriers to the development of climate-friendly energy sources; and
5. Promote energy conservation and efficiency.

I urge you to view my testimony today as a valuable resource. The Chamber and its members have already had the internal debate on climate change, and our five core principles are largely the result of that discussion. The Chamber has not endorsed one specific solution or one specific piece of legislation, but over the years has supported legislation that funds research, development and deployment of technology, and that promotes energy efficiency.

Let's not turn our backs on the energy companies that made America great. Instead, let us work with those companies to develop the technology to make their energy—indeed, all energy—clean, efficient, and affordable. Only then will we be able to solve the global climate challenge.

I. Preserve American jobs and international competitiveness of U.S. industry.

Any climate change solution, no matter what it is, must preserve American jobs and the competitiveness of American industry. Even areas served by large power companies (who arguably would be able to afford either the technology or the extra credits necessary to stay in business) would feel the strain, both from increased costs of doing business and other regions' inabilities to keep up. A 2005 analysis done by CRA

International found that, for legislation aimed at reducing greenhouse gas emissions to 2000 levels by 2010, and continuing at that rate until 2020, the cost to business and society would be substantial while the effects of climate change would not be reduced.[2] Specifically, CRA found that such legislation would cost the average household $450 to $720 per year until 2010, rising to $490 to $810 until 2020. The U.S. would lose 550,000 to 840,000 jobs by 2010, and 793,000 to over 1.3 million jobs by 2020.[3] Coal production would decline by 22 to 42 percent, electricity generation by 7 to 14 percent, and oil refining by 6 to 13 percent.[4]

These negative effects are within the realm of possibility when considering industry's inability to meet the aggressive targets set by many of the climate change bills currently before the Senate. *Assessment of U.S. Cap-and-Trade Proposals*, a study recently performed by energy experts at the Massachusetts Institute of Technology, analyzed three scenarios, which roughly mirrored the targets sought in bills introduced by Senators Bingaman, McCain-Lieberman, and Sanders-Boxer, respectively.[5] The forecasted increases in electricity prices found by the MIT panel are simply staggering: from 2015 to 2050, Senator Bingaman's bill will increase prices by 31 to 59 percent with nuclear in the mix, 34-66 percent without; the McCain-Lieberman targets will increase prices by 51 to 59 percent with nuclear, 51 to 75 percent without; and the Sanders-Boxer bill will raise prices by 56 to 59 percent with nuclear, and 60 to 78 percent without.[6] Faced with such rising energy costs, it would be no surprise to see many heavily energy-dependent industries migrate overseas and take American jobs along with them. The chemical industry has already done so.[7]

II. Must be economy-wide, international in scope, and must include developing nations.

Any climate change program must be long-term, international, and economy-wide. Domestic emissions constraints, without corresponding long-term cutbacks in greenhouse gas emissions from nations such as China and India, will not only fail to make the required impact on levels of greenhouse gases in the atmosphere, but could also irreparably harm our country's ability to compete in the global market.

As the Task Force on Hemispheric Transport of Air Pollution (HTAP) made clear just last week, emissions measured in American cities do not always originate within

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[2] CRA International, "Costs to the Nation under Proposed Federal Cap and Trade Legislation to Limit Greenhouse Gas Emissions," June 21, 2005, *available at* http://www.accf.org/pdf/statestudies2/US-2005%206-21-05.pdf.
[3] *Id.*
[4] *Id.*
[5] Paltsev, S., et al., *Assessment of U.S. Cap-and-Trade Proposals*, Apr. 1, 2007, *available at* http://web.mit.edu/globalchange/www/MITJPSPGC_Rpt146.pdf.
[6] *Id.*
[7] Greg Schneider, *Chemical Industry in Crisis: Natural Gas Prices Are Up, Factories Are Closing, And Jobs Are Vanishing*, WASH. POST, Mar. 17, 2004, at E01.

American borders.[8] Climate change legislation must therefore target the citizens and businesses of all nations, not simply domestic power plants and fossil fuel producers. If not, the effects on the U.S. economy, consumer prices and jobs could be disastrous.

Similarly, any long-term climate change action plan absolutely must include developing nations such as China and India. Chinese emissions are projected to increase 119 percent and Indian emissions 131 percent between 2004 and 2030.[9] Unless developing nations are engaged, domestic emissions controls would penalize domestic businesses that attempt to compete in the world market while non-participating developing nations continue to get a free ride.

The good news is, we have a mechanism to accomplish an international, economy-wide solution that has brought developing nations—even China and India—to the table: the Asia-Pacific Partnership for Clean Development (APP). The bad news is, APP is not receiving the time, attention, or funding it needs to accomplish its goals. APP is still in its relative infancy, and needs both (a) time to develop and demonstrate climate-friendly technology, and (b) increased funding from the World Bank and the International Monetary Fund.

The United States is not holding up its end of the bargain with respect to APP and technology development and deployment. The Energy Policy Act of 2005 (EPAct), which contains more than 60 provisions requiring the U.S. government to engage with the private sector and develop innovative climate and energy technologies, is embarrassingly under-funded. To make matters worse, several bills in Congress attempt to repeal and/or de-fund those EPAct provisions that have begun to make a difference.

President Bush recently announced plans for an international summit at which the 10-to-15 nations responsible for approximately 85 percent of the world's global emissions will begin a dialogue on the best way to reduce those emissions responsibly. As Council on Environmental Quality Chairman Jim Connaughton recently stated, any near-term domestic efficiency gains will be overwhelmed by the rise of coal-based power generation in China, India, South Africa, Mexico, Central and Eastern Europe, and Russia.[10] Those countries will continue to use coal because they are trying to advance their economies, trying to lift people out of poverty, trying to provide clean water, and trying to use energy to run air pollution controls. And energy is necessary for all of that. The purpose of President Bush's proposed summit is to find a shared technology-development pathway, to bring the cost of these expensive technologies down so that they will be used by China, India and other developing nations.[11]

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[8] Task Force on Hemispheric Transport of Air Pollution, *2007 Interim Report* (June 2007), *available at* http://www.htap.org/activities/2007_interim_report/reading/TF%20HTAP%202007%20Exec%20Sum%20070612.pdf.

[9] International Energy Agency, *World Energy Outlook 2006*, *available at* http://www.iea.org/textbase/weo/index.htm.

[10] Press Briefing by Senior Administration Officials on the President's Trip to Europe and the G8 Summit, Radisson Hotel, Rostock, Germany, June 6, 2007; *available at* http://www.whitehouse.gov/news/releases/2007/06/20070606-5.html.

[11] *Id.*

III. Promote accelerated development and deployment of greenhouse gas reduction technology.

The development and deployment of affordable, widely-available climate-friendly technology is crucial to preserving jobs while controlling emissions. Carbon capture and sequestration, next-generation nuclear power, and other cutting-edge technologies must be researched, developed, demonstrated and deployed. Without widespread availability of these and other technologies, the power plant sector may not be able to continue producing power to meet local and regional demands while also satisfying aggressive carbon emissions caps.

Although some of these technologies exist, they are by no means cost-effective or commercially viable. Current emissions control technologies are too expensive for all businesses to utilize under their respective business models.[12] Larger businesses can arguably afford the high cost of this technology while continuing to turn a profit, but small and mid-sized businesses cannot.

Similarly, new technologies are far from simple to deploy. Siting, permitting, insurance coverage, and liability exposure concerns will remain major roadblocks, as will high costs for materials, labor, and construction expertise. The overall costs of wind, nuclear, and liquefied natural gas regasification facilities continue to increase due to rising costs of materials.

Carbon capture and sequestration technology is perhaps the best example of our ongoing technological struggle. *The Future of Coal*, a report released in March 2007 by a consortium of faculty and energy experts at MIT, found that, even with a high price on carbon (due to a legislative or regulatory cap or tax), coal, the leading source of carbon-dioxide emissions from electricity generation, will continue to be a major source of electricity due to its sheer abundance and an increasing worldwide demand for energy.[13] However, the report criticizes current efforts by the U.S. Department of Energy (DOE) to research carbon capture and sequestration, and calls for a $5 billion, 10-year program to research, develop and (most importantly) demonstrate on a realistic scale the technology necessary to capture and store carbon dioxide from coal-fired power plants.[14] The MIT report also cites additional hurdles, such as (1) coal gasification limitations, (2) near-prohibitive costs of retrofitting existing coal plants to capture and sequester carbon, and (3) DOE's failure to determine system costs through the FutureGen project.

The MIT study concludes that coal demand is not going anywhere, yet we are now facing imminent legislation that will constrain coal power plants' abilities to meet this growing demand while failing to provide an adequate technological alternative. It is

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[12] Paltsev, S., et al., *Assessment of U.S. Cap-and-Trade Proposals*, Apr. 1, 2007, *available at* http://web.mit.edu/globalchange/www/MITJPSPGC_Rpt146.pdf.
[13] Deutch, J., and Moniz, E., *The Future of Coal: An Interdisciplinary MIT Study*, March 14, 2007, *available at* http://web.mit.edu/coal.
[14] *Id.*

for this reason that, if Congress does anything, it must absolutely provide comprehensive research and development incentives to stimulate technological innovation. Without such incentives, emissions controls will likely fail.

IV. Reduce barriers to the development of climate-friendly energy sources.

If Congress is truly determined to (a) cap greenhouse gas emissions and reduce those levels over time, (b) require mandatory renewables from every state, and (c) attempt to achieve some level of energy independence, it must remove all barriers to the development of clean, climate-friendly energy sources. It must stop creating barriers to "national interest" transmission corridors recently designated by DOE. And it must not only provide incentives for so-called "renewables" such as wind, solar and geothermal, but also clean energy sources such as coal, hydropower, nuclear power, biofuels, and clean-burning natural gas. If the true policy goal is to encourage energy production, there is no legitimate reason why innovative energy technology producers are left standing at the door as they get ready for the marketplace. Congress must be pragmatic about its energy strategy, and any legislation should be technology-neutral so that Congress avoids picking technology winners and losers.

V. Promote energy conservation and efficiency.

The amount of energy required to produce a dollar's worth of goods and services in the U.S. economy fell by more than 50 percent between 1949 and 2004, as a result of improvements in energy efficiency, structural shifts in industry, and other related factors.[15] From 1980 to 2004, industrial delivered energy use per dollar of industrial value of shipments declined by an average of 1.6 percent annually.[16] According to the Energy Information Administration, although energy use generally increases as the economy grows, continuing improvement in the energy efficiency of the U.S. economy and a shift to less energy-intensive activities are projected to keep the rate of energy consumption growth lower than the GDP growth rate.[17]

Chevron began tracking energy use across all operations in 1992, and reports that since beginning company-wide efforts, energy efficiency has been increased by 24 percent.[18] Since the 1992 inception of the Environmental Protection Agency's Energy Star program, Eastman Kodak Company has reduced its use of energy by more than 15 percent.[19] 3M has improved its worldwide energy efficiency by 29 percent since 1998.[20]

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[15] U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, "Highlights of Energy Intensity Trends – Total Energy," *available at* http://intensityindicators.pnl.gov/total_highlights.stm.
[16] Energy Information Administration, *Annual Energy Outlook 2007*, at 79, *available at* http://www.eia.doe.gov/oiaf/aeo/index.html.
[17] *Id.*
[18] Chevron Corporation, "Energy Efficiency and Conservation," *available at* http://www.chevron.com/social_responsibility/energy_conservation/.
[19] ENERGY STAR Awards for Sustained Excellence and Corporate Commitment, 2005, *available at* http://www.energystar.gov/index.cfm?c=pt_awards.pt_es_winners_2005.

United Technologies Corporation improved its worldwide normalized energy consumption performance by 39 percent from 2002 to 2006.[21] These are but a few examples of how business and industry are seeking out and taking advantage of energy efficiency opportunities; there are thousands of other companies doing the same.

Energy efficiency makes good business sense: such practices, where cost-effective, often afford sizable reductions in operating costs. The flip side to this argument, however, is that companies are typically reluctant to implement cost-*ineffective* energy efficiency measures.[22] Historically, lawmakers have used policy instruments to ensure cost recovery for such cost-ineffective measures. This is the absolute wrong way to promote energy efficiency. The market should decide which energy efficiency technologies are winners and losers, not politicians. Governmental intervention should only be considered as a last resort, following careful examination of all long-term benefits and drawbacks.

This country's energy goals will be met only by a commitment to technology innovation and to *all* types of available energy sources. Power plants, the industrial lifeblood of our country, must not be unnecessarily constrained by climate change legislation without first being afforded the technology necessary to meet those controls. Just like the American public itself, diversity of domestic energy production is vital to continued economic prosperity. If you ignore this truth, you will be turning out the lights on our country's economic future—literally.

Thank you for the opportunity to testify today. I look forward to answering any questions you may have.

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[20] 3M Corporation, "Improving Energy Efficiency," *available at* http://solutions.3m.com/wps/portal/3M/en_US/global/sustainability/s/performance-indicators/environment/energy-efficiency/.

[21] United Technologies Corporation, *2006 Corporate Responsibility Report*, at 4, *available at* http://www.utc.com/responsibility_reports/2006/2006_utc_corporate_responsibility.pdf.

[22] The exception to this rule might be businesses that act as "first movers," such as those seeking to gain technological expertise or establish primacy in intellectual property rights on energy efficiency technology.