Center for American Progress Action Fund

Committee on Energy and Natural Resources
U.S. Senate

Green Recovery: Investing in Clean and Efficient Energy
To Create Jobs and Stimulate the Economy

Testimony of Bracken Hendricks
Senior Fellow, Center for American Progress Action Fund

December 10, 2008

Chairman Bingaman, Senator Domenici, and Members of the Committee, thank you for the invitation to discuss how investments in clean and efficient energy and environmental improvements to our nation's infrastructure can create jobs and economic stimulus during this time of tremendous challenge for working families.

Today we urgently need immediate stimulus and near term recovery investments; yet we must also use our resources wisely, not only to get our economy moving but to get it moving in the right direction. A green recovery plan will create more jobs, and more good jobs at higher wages, and it will create new markets for American business while reducing the overall cost of addressing our climate and energy crises. This is smart public policy and good government, and I applaud your leadership in seeking this path forward for the nation.

I am Bracken Hendricks, Senior Fellow at the Center for American Progress Action Fund, a non-partisan multi-issue think tank focused on developing innovative policies that build a more broadly shared prosperity. At CAPAF, we have come to believe, through deep research on the matter, that smart strategic investments in climate solutions can help to rebuild the underpinnings of our economy and create significant numbers of good jobs.

Built on the foundation of efficient and low-carbon energy sources, this transition can be a source of increased business opportunity and competitiveness, stronger communities, improved national security, and increased prosperity. We call this approach "the Energy Opportunity," and we believe that it must be at the center of both America's energy policy and our economic policy as we confront the interrelated challenges of a sagging economy, rising energy prices, and a growing climate crisis.

In this testimony, the Center for American Progress Action Fund offers some thoughts on: 1) the current economic downturn and the urgent need for an aggressive stimulus package that extends well into the coming year; 2) why clean energy should be a major centerpiece of any such recovery plan, possibly constituting from one quarter to one third of a larger stimulus package; and 3) priority measures that will not only create jobs and growth in the short term, but help rebuild the foundation of the U.S. economy over the long term on the platform of renewable and efficient low-carbon energy.

The Need for Stimulus and Recovery

The U.S. economy is facing the most serious difficulty we have experienced at any time in a generation. Long-run problems of stagnant or falling wages and incomes are no longer hidden by artificially inflated asset values. The effects of the financial crisis have moved from Wall Street to the daily operations of business and the daily lives of families.

Consider that:

- The 0.5 percent decline in gross domestic product in the third quarter of 2008 was the biggest since the last recession in 2001.
- Total job losses in 2008 have hit over 1.9 million, including 530,000 in November alone.
- Median household income is lower than it was in 1999.
- The values of homes fell by 2.5 percent, or $351 billion, in the second quarter of 2008.
- One in 11 mortgages is delinquent or in foreclosure, and credit card defaults rose to 5.5 percent of all credit card debt by the second quarter of 2008.
- Credit-market borrowing financed 35.2 percent of fixed investment by non-financial corporate businesses in the second quarter of 2008, down from 80.1 percent a year earlier.

In this climate, there is an urgent need for federal policies designed to provide stabilization, stimulus, recovery, and growth to address these huge problems. Without action, there is too great a risk of further collapse and an ever-worsening spiral of job loss and economic decline. In addition to action aimed at stabilizing the extremely shaky auto industry and financial and housing markets, Congress should act quickly to pass measures to stimulate the broad economy and commence the road to recovery.

Stimulus policies should be designed to offer an immediate boost throughout the economy by spurring demand. Their purpose is to quickly stall a downward spiral in the economy and give confidence to businesses to invest and hire by restoring demand for their products. But the consequences of the current downturn are not likely to be reversed quickly by traditional, fast-moving stimulus measures. Also needed is a recovery program to accelerate the creation of a strong labor market and restore lost jobs over the next two years.

There is a growing consensus that stimulus and recovery spending should be on the order of 2 percent to 4 percent of GDP. Nobel Prize-winning economist Paul Krugman concludes that, "the stimulus package should be at least 4 percent of GDP, or $600 billion."[1] Goldman Sachs calls for a stimulus of $500 billion.[2] CAP Senior Fellow Gene Sperling, former director of President Bill Clinton's National Economic Council and Clinton's national economic advisor, says, "The breadth and potential depth of that demand crisis require us to undertake a bolder 'Powell Doctrine' on stimulus in which $300 billion to $400 billion—or at least 2 percent of GDP—should be the starting point with an understanding that more could be needed and that we will need to call for a coordinated global stimulus."[3]

Beyond the immediate challenges, the economy has long-standing fundamental problems that must be addressed by major changes in our nation's approach to energy, education, infrastructure, scientific research, innovation, and other areas as described in the Center for American Progress report "Progressive Growth."[4] Stimulus and recovery measures aimed at the immediate crisis should be designed, as a matter of good governance, to serve double duty by providing a jumpstart in the investments needed for the country's long-term growth. A green recovery strategy can meet both of these objectives.

The Center for American Progress has outlined a plan to invest $350 billion (greater than 2 percent of GDP) in a one-year stimulus and recovery package that will jump start economic demand and stimulate job creation while making a significant down payment on meeting these broader public policy challenges, making efficient use of taxpayer funds. In broad categories, the $350 billion package includes approximately:

- $55 billion to spur demand and assist those most in need.
- $70 billion aid for state and localities.
- $175 billion for infrastructure investments in stimulus and recovery.
- $50 billion for tax cut stimulus.

Within the infrastructure section, this plan identifies over $100 billion of clean energy and environmentally beneficial projects and programs that could help direct new investment rapidly into deploying energy efficiency and low-carbon technology. This approach will drive new investment in construction and manufacturing jobs, create new markets for technology and skilled labor, and help cut consumer energy costs, all while leaving a legacy of productive infrastructure and investments.

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1 Paul Krugman, "Stimulus math (wonkish)," "The Conscience of a Liberal," November 10, 2008, available at http://krugman.blogs.nytimes.com/2008/11/10/stimulus-math-wonkish/.

2 Brian Faler, "Democrats Set to Take on Stimulus Bill as Price Rises," Bloomberg.com, November 4, 2008, available at http://www.bloomberg.com/apps/news?pid=20601103&sid=aXUnWNKW7P5I&refer=us.

3 Gene B. Sperling, Testimony before the House Energy and Commerce Subcommittee on Health, November 13, 2008, available at: http://www.americanprogressaction.org/issues/2008/sperling_testimony.html.

4 John Podesta, Sarah Rosen Wartell, and David Madland, "Progressive Growth: Transforming America's Economy through Clean Energy, Innovation, and Opportunity." Center for American Progress, November 2007. Available at: http://www.americanprogress.org/issues/2007/11/progressive_growth.html

A Green Recovery Means More Good Jobs

Working in partnership with the University of Massachusetts' Political Economy Research Institute, the Center for American Progress recently released a report entitled, "Green Recovery: A Program to Create Good Jobs and Start Building a Low-Carbon Economy." The report outlines a program of investment that would rapidly inject $100 billion into the domestic economy through near-term spending on energy efficiency and renewable energy.

This analysis found that a strategy for economic recovery that invests in new energy alternatives and smart public infrastructure provides superior improvements in economic performance and job creation when compared to either rebates or comparable spending on traditional energy sources. A program of investment in deploying new clean energy technology and improving building efficiency is good short-term economic policy. It would drive immediate spending into some of the hardest hit sectors of the domestic economy in construction and manufacturing. Put simply, a green recovery package creates more jobs and more good jobs than any other strategy. It deserves strong consideration at this time.

There are many ways in which government spending can stimulate the economy and create jobs as part of a recovery program. Public spending directed toward a green recovery, however, would result in more jobs than spending in many other areas, including, for example, on rebates for increasing household consumption, which was the primary aim of the April 2008 $168 billion stimulus program. Near-term investments in energy efficiency and renewable energy also have the added benefit of moving the country toward the low-carbon future that is necessary to increase our international competitiveness and national security, and avoid the devastating social, economic, and environmental effects of global warming over the long term.

A green recovery program is more effective as an engine of job creation than spending the same amount of money within the oil industry or on household consumption. Increasing spending by $100 billion on household consumption along the lines of the April 2008 stimulus program would create about 1.7 million total jobs, or about 16 percent fewer jobs than the green recovery program. In addition to creating more jobs, targeting an economic stimulus program at increasing green investments also creates more good jobs at higher wages than either a conventional stimulus or comparable spending in the traditional energy sector. A green recovery strategy also offers longer-term benefits: reducing home energy bills to provide consumer savings; stabilizing the price of oil, natural gas, and other non-renewable energy sources through reduced demand and increased energy diversity; and, of course, building over time a low-carbon economy.

While it is not proposed as an option for economic stimulus, spending on current fossil fuel-based energy offers a useful comparison to demonstrate the substantially increased economic benefits of investing in renewable energy and efficiency. Spending $100 billion within the domestic oil industry, for example, would create only about 542,000 jobs in the United States. A green infrastructure investment program would create 2 million jobs, or nearly four times more jobs than spending the same amount of money on expanding oil energy resources. And again, spending on oil offers no benefit in transitioning the U.S. economy toward a low-carbon future, and it perpetuates the economic and national security vulnerabilities of continuing to rely on oil for the lifeblood of our economy.

A green recovery strategy will help to improve the overall efficiency of the U.S. economy, which currently uses nearly twice the energy for every unit of GDP when compared to many of our European and Asian competitors.[5] If the Bush administration had pursued an aggressive package of energy-efficiency measures across the economy starting in 2001, with implementation beginning in 2002, the cumulative savings to the economy today would be a remarkable $206 billion in avoided energy costs.[6] These energy cost savings can increase the purchasing power of American families for more productive purposes. In addition, it will generate new markets for American manufactured goods and advanced technology. But for the purposes of a near-term economic stimulus package, two features of a green recovery are critical: it is relatively more labor intensive than other investments, and the jobs that it creates are more concentrated on domestic workers.

Green jobs are more labor intensive. Relative to spending within the oil industry, the green investment program utilizes far more of its overall $100 billion in spending on hiring people than it does on purchasing machines and supplies. Renewable energy and energy efficiency create more jobs per dollar invested than traditional fossil fuel-based generating technologies by putting money directly into advanced technology manufacturing, modern infrastructure expansion, and developing the skills of people. This is money that would have been previously spent on wasted energy and imported fuel. These investments substitute dollars spent on pollution and waste and redirect that investment into the skills of workers and the infrastructure of communities.

Green investments have more domestic content. A green investment program relies much more on goods and services made within the U.S. economy and less on imports when compared to spending either within the oil industry or on household consumption. In general, about 22 percent of total household expenditures flow toward imported goods. With the green recovery investment program, only about 9 percent purchases imports.[7] Another critical benefit of a green economic recovery program is that infrastructure upgrades, building efficiency retrofits, renewable energy installations, and other components of green investment all involve work that cannot easily be outsourced. Moreover, the diffuse nature of these programs ensures that spending on goods and

[5] Center for American Progress and the Worldwatch Institute, "American Energy: The Renewable Path to Energy Security" (2006) available at http://www.americanprogress.org/issues/2006/09/american_energy.html/AmericanEnergy.pdf (last accessed October 2007).
[6] American Council for an Energy Efficient Economy, data supplied by Dr. John Laitner, September 2008.
[7] Robert Pollin, Heidi Garrett-Peltier, James Heintz, and Helen Scharber, "Green Recovery" (Washington: Center for American Progress, 2008), available at http://www.americanprogress.org/issues/2008/09/pdf/green_recovery.pdf

services is spread widely across regions of the country and stays in the local economies where these services are rendered, as compared to large, centralized energy or infrastructure projects. The economic spillover and indirect job creation effects of this phenomenon help explain why green investments create more jobs and more good jobs than the alternatives.

Public investment is important to private markets. In considering the viability of spending on large-scale public investment projects, one of the major issues that is often raised is whether such expenditures absorb the limited amount of total investment funds in the economy, and thereby "crowd out" private sector investment activities. In fact, the weight of evidence examining the impact of public investment on the U.S. economy does not point to a crowding-out effect. It rather finds that, on balance, higher levels of public investment will promote private sector productivity and higher rates of return for business. As such, the evidence suggests that many kinds of public investments in the United States generally *crowd in* private investment by establishing the enabling conditions for sustained growth in private sector investment and business formation. As a result, the crowding-in benefits of public investments are also associated with higher rates of private sector employment and job creation. For this reason, it is important to recognize that while in a green recovery strategy the public is priming the pump for new economic growth, new private sector activity is the real engine of jobs and growth.

A Green Recovery Policy Agenda

Green investments are especially effective job and growth creators because they stimulate new demand by moving the economy to advanced technology, modern infrastructure, and skilled labor.[8] Many of the green investment projects, such as building retrofits and weatherization, are labor intensive in construction and manufacturing where unemployment is high. CAP has recommended that one-quarter to one-third of a larger stimulus package be dedicated to the green components of a plan. "A Strategy for Green Recovery" from the Center for American Progress Action Fund describes in greater detail some of the proposals outlined below. The following energy-related investments can start stimulating the economy relatively rapidly, driving new investment directly into communities. Some near-term opportunities for driving new smart energy investments include:

- **Transit fare reductions and service expansions:** Provide $2 billion in assistance to transit agencies to reduce transit fares and expand services.

- **The Weatherization Assistance Program:** Fully fund the Weatherization Assistance Program at $900 million, the amount Congress is authorized to spend on the program in fiscal year 2009, and build toward a goal of weatherizing 1 million homes.

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[8] Bracken Hendricks and Benjamin Goldstein, "A Strategy for Green Recovery: Stimulating the Economy Today by Rebuilding for Future Prosperity," Center for American Progress Action Fund, November 10, 2008, available at http://www.americanprogressaction.org/issues/2008/pdf/green_recovery_memo.pdf

- **The Federal Energy Management Program:** $1.3 billion to fully fund energy-efficiency programs.

- **Workforce investment in the Green Jobs Act:** Appropriate $250 million for the Green Jobs Act, authorized in the Energy Independence and Security Act of 2007, to provide job training and workforce investment in energy efficiency and renewable-energy installations.

- **Refundable residential energy efficiency tax credits:** Increase funding for refundable residential energy efficiency tax credits to $5 billion and raise the maximum credit for household efficiency upgrades to $2,000.

- **Solar roofs on federal buildings:** Provide $3.5 billion to install 2,000 megawatts of solar power on federal rooftops, and amend federal electricity contracting to allow for 30-year power purchasing agreements.

- **New Starts Transit project investments:** $5 billion to partially bridge the anticipated shortfall in federal transit capital funding for fixed-guideway projects approved in the Federal Transit Administration New Starts pipeline.

- **Smart grid federal matching funds:** Fund the Smart Grid Title of the Energy Independence and Security Act of 2007 to support $1.3 billion for infrastructure investment and demonstration projects.

- **Green jobs restoring the land.** Expand existing programs by $800 million to restore parkland, forests, wetlands, wildlife refuges, and rural ecosystems.

- **The Manufacturing Extension Partnership:** Expand the capacity of domestic manufacturing modernization efforts by increasing MEP funding to $200 million.

- **Greening affordable housing:** As proposed by the Center on Budget and Policy Priorities, provide $5 billion for both public housing and federally subsidized, privately owned units. This could be distributed through public housing agencies and the HOME program, and used to increase energy efficiency, reduce energy operating costs, and bring empty homes back into use.

- **Green school construction and renovation:** Immediately support state and local school modernization, renovation, and repair at a cost of $7.25 billion.

- **Water and wastewater infrastructure:** $10 billion for cities to address issues with water and wastewater treatment.

In addition, some slightly less fast-acting, but still near-term, recovery proposals can drive new investment into our energy infrastructure within the next year to create needed jobs. A well-balanced recovery plan will include proposals that are concentrated in the first few months, as well as a range of structural investments that will create significant growth over the course of the coming year. Some of these proposals include:

- **Building retrofits:** New authorization and funding of $10 billion to provide the initial financing for a public revolving loan fund—tax exempt, with credit guaranteed by the federal government, available for packaging with private capital—to spur the national building retrofit effort, with the principal to be repaid at the end of a five-year period.

- **Energy efficiency and conservation block grants:** Appropriate $5 billion to fund states, cities, and counties pursuing clean energy projects.

- **"Cash for Clunkers" rebates for older cars:** Initiate a $2.5 billion annual program to purchase and scrap older, more polluting cars, in exchange for an owner agreement to acquire a more efficient vehicle or use alternative transportation.

- **Clean Renewable Energy Bonds:** Increase CREB funding by $3 billion to finance renewable energy projects by electric cooperatives, government entities, Indian tribal governments, and others.

- **Advanced coal technology to capture carbon:** Invest $1.1 billion to deploy demonstration carbon capture-and-storage technology at a coal-fired power plant.

- **Electric transmission grid:** New authorization for a $10 billion outlay for a new Federal Trust Fund for transmission and smart-grid build out through direct spending and grants to states and municipalities.

- **Manufacturing:** $15 billion in grants to states to support manufacturing plant retooling to produce clean and energy-efficient technologies and advanced batteries for electric vehicles.

- **Advanced technology vehicle manufacturing and retooling:** $25 billion in additional loans for automobile manufacturers. The budget cost will be $7.5 billion.

- **Replacing aging buses and acquire rail cars:** $4 billion on a competitive bid basis for mass transit agencies to replace aging buses with efficient, low-emission vehicles, acquire new rail cars to meet the surging demand for transit services across the nation, and perform needed and backlogged maintenance.

- **Local transit infrastructure:** $8 billion to fund 559 "ready-to-go" public transportation capital projects that could begin within months of federal funding being made available. The funding would include the oldest and largest rail transit systems that face increasing maintenance and upkeep costs.

- **Capital assistance to states:** $10 billion to fund and dramatically expand the

Intercity Passenger Rail Service Program for a federal-state partnership to promote intercity passenger rail development. This will include helping the states and Amtrak acquire new and rehabbed passenger rail rolling stock.

- **Clean Energy Corps:** $3 billion for a national CEC, a combined service, training, and job-creation effort to combat global warming, grow local and regional economies, and demonstrate the equity and employment promise of the clean energy economy. The funding could be distributed through the Corporation for National and Community Service and the Department of Labor to administer CEC-related programs.

- **The Industrial Waste Recovery Program:** $410 million to provide incentives for industrial facilities to generate electricity from recovered waste heat, as authorized by the Energy Independence and Security Act.

Together these investments can readily drive over $100 billion into near-term spending that not only provides benefits for our energy security, but promotes stimulus by providing assistance to states and cities, encouraging new investment in housing and the construction industry, increasing consumer savings, expanding opportunities for training and national service, providing direct relief to low-income Americans, and reinvesting in our manufacturing jobs base.

Investing in a green recovery is not a replacement for a more comprehensive climate strategy, nor does it obviate the need for other forms of fast acting stimulus that help consumers with health care, education, child care, unemployment insurance, or other pressing economic needs. Instead, a green recovery program is a powerful complement to a larger stimulus effort that is strategically targeted to steer the economy where we need to go over the long term. Such a plan represents an opportunity to make a significant down payment on the sort of economic activity that will be required to fundamentally transition our economy away from carbon-intensive and imported energy sources, and to begin the process in earnest of moving toward more efficient, domestic, and renewable energy as a solution to global warming.

In addition to the recent report on Green Recovery, the Center for American Progress has outlined a critical path for the long-term transition to an economy that seriously takes on the challenge of advancing climate solutions. The CAP report "Capturing the Energy Opportunity: Creating a Low-Carbon Economy"[9] identifies 10 steps to a low-carbon economy that will be critical to moving our country toward reliance on low-carbon energy. This strategy involves a mix of direct investment, smart regulation, and administrative solutions. The near-term investments outlined in the Green Recovery program are wholly consistent with this longer-term vision for change.

Given the magnitude of coming challenges in building a vibrant, competitive, and low-carbon economy, it is essential that Congress, as the guardian of public trust resources,

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[9] Report available at: http://www.americanprogress.org/issues/2007/11/energy_chapter.html

seeks to make any short-term investments in stimulus with an eye toward coming long-term public challenges. In addition, our research with the University of Massachusetts shows that as well as providing long-term benefits, a Green Recovery is good economic policy because it provides more jobs and more good jobs for the American people. As such, a green recovery represents good government by anticipating challenges and investing in healthier communities, a more robust economy, and a safer world.

Thank you for your leadership on these pressing issues facing the U.S. economy.

In addition to Bracken Hendricks, Michael Ettlinger, Will Straw, and Benjamin Goldstein contributed to this testimony on behalf of the Center for American Progress Action Fund.