

# A Strategy for Green Recovery

# Stimulating the Economy Today by Rebuilding for Future Prosperity

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# Responding to the current economic crisis

There is a growing consensus in Washington D.C. and on main streets across the country that the economy needs a jumpstart. Unemployment stood at 6.5 percent in October 2008, its highest level since March 1994, and employers cut 240,000 jobs, bringing the total number of jobs lost this year to 1.2 million. Losses continued to spread throughout the economy, leaving health care and social assistance, and natural resources and mining, as the only two private sectors unscathed

New housing construction continued to slow in September, with privately owned housing starts at a seasonally adjusted annual rate 6.3 percent below the revised August estimates, and 31.1 percent below the September 2007 rate.<sup>2</sup> Housing prices also continued to drop across the country, with the Standard & Poor/Case-Shiller 20-city composite index in a year-over-year decline for the 20th consecutive month. <sup>3</sup> Home foreclosures, tightening credit, and stagnant wages for workers are all adding to this crisis.

The aggregate effect of this economic malaise makes a stimulus and recovery package urgent and incontrovertible.

# Investing in long-term prosperity

There are compelling reasons why the infrastructure and workforce components of the economic stimulus and recovery package should be "green." Confronting the mounting energy and global warming crises represents an extraordinary opportunity to reinvigorate the economy through investment in clean, sustainable, low-carbon energy sources.

Indeed, the transformation of our antiquated energy infrastructure around the platforms of efficiency and reduced carbon emissions represents the greatest potential driver of American innovation, economic growth, and job creation in the coming decades. This is even more urgent because the consequences of *inaction* for our climate, energy, national security, public health, and economy, all forebode substantial costs for America's future.

There are many ways that government spending can boost the economy and create jobs as part of a stimulus and recovery program. Yet dollars directed toward renewable energy and energy efficiency would result in more jobs than spending in most all other areas, including, for example, rebates for increasing household consumption, which was the primary aim of the April 2008 \$168 billion stimulus program. "Green" investments, on average, create more than twice as many jobs per dollar invested than traditional fossil fuel-based generating technologies by redirecting money previously spent on wasted energy and imported fuel toward advanced technology, modern infrastructure, and skilled labor.

# Stimulus, recovery, and long-term growth

Confronting energy and climate challenges will require a sustained commitment and long-term policy framework. But near-term green investments can immediately stimulate the economy, move the country along the road toward economic recovery, create millions of good jobs, and put a solid down payment on the low-carbon future vital for our long-term economic growth.

Focused investment in deploying new clean technologies and improving energy efficiency can drive immediate spending into some of the hardest hit sectors of the economy such as construction and manufacturing, and can ensure that this infusion flows directly into job creation and domestic investment. Further, smart policies for energy efficiency can reduce household utility bills and free up income for consumer spending on other goods and services.

Green investments also pave the road for sustained economic recovery over the next few years. Larger capital-intensive green infrastructure projects such as new mass transit, and renewable energy generating facilities may take one to two years to get fully up and running, but will be good job creators with a dependable domestic economic multiplier effect. About 22 percent of total household expenditures go to imports. But only about 9 percent of a green infrastructure investment program purchases imports. This is another critical advantage of a green economic recovery program: Investments are focused primarily on increasing domestic productive capacity, improving national infrastructure, and making the entire economy more efficient over the long term.

# Putting a down payment on a low-carbon future

Near-term investments in energy efficiency and renewable energy have the added benefit of moving the country toward the low-carbon future necessary to increase our international competitiveness, improve our national security, and avoid the devastating social, economic, and environmental effects of global warming over the long term. A combined strategy for economic stimulus and recovery will invest in clean energy and smart, efficient public infrastructure, which will provide superior improvements in economic performance and job creation when compared to either rebates or spending on traditional energy sources. Put simply, a green stimulus and recovery package creates more jobs and more good jobs than any other strategy, and has a host of positive externalities in terms of public health, energy security, and climate stability. It is the clear way forward at this critical time.

Working in partnership with the University of Massachusetts' Political Economy Research Institute, the Center for American Progress recently released a report entitled "<u>Green Recovery: A Program to Create Good Jobs and Start Building a Low-Carbon Economy.</u>" The report lays out a strategy for short-term, two-year economic recovery that also achieves longer-term public purposes by laying the groundwork for a clean, low-carbon economy.

Specifically, we outline in our report a program of investment that would inject \$100 billion in federal money into the domestic economy through near-term spending on energy efficiency and renewable energy, while leveraging at least an additional \$20 billion in private capital through loan guarantees. The report focuses on strategies that ensure that funds are brought to bear relatively quickly within the timeframe necessary to jumpstart the economy.

This current memo expands on the on the "Green Recovery" report by identifying the specific policies that could be used to drive new investment within a matter of a few months to a year, in some cases offering immediate stimulus, and in others providing meaningful near-term strategies for economic recovery and growth. The policies we propose are by no means exhaustive, but do reflect the programs we think should be a priority. These cover all sectors of the economy, including transportation, manufacturing, construction, building efficiency, neighborhood revitalization, and workforce development.

A \$47.2 billion green recovery package could include near-term spending on the following programs:

## Stimulus investments

Transit agencies and ready-to-go transportation projects: Provide \$2 billion in assistance to transit agencies to reduce transit fares and expand services, and begin construction on ready-to-go rail and other projects.

- 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.
- Clean renewable energy bonds: Increase CREB funding for consumer-owned utilities to \$5 billion to jump-start renewable 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.
- The Weatherization Assistance Program: Fully fund the Weatherization Assistance Program at \$900 million, the amount Congress is authorized to spend on the program in FY 2009, and build toward a goal of weatherizing 1 million homes.

# Recovery investments

- Energy efficiency and conservation block grants: Increase appropriation to \$6 billion to fund states, cities, and counties in pursuing clean energy projects.
- Solar roofs on federal buildings: Authorize \$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: Fully fund the New Starts Transit budget at the \$6.6 billion authorized in Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users.
- **Green school construction and renovation:** Support state and local school modernization, renovation, and repair at \$7.25 billion.
- Green affordable housing HOME block grants: Supplement block grant funding through the HOME program with \$1 billion for energy-related projects.
- HOPE VI program for green community revitalization: Appropriate \$800 million for greening HOPE VI projects to meet Energy Star and green communities standards.
- 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.
- Workforce investment in the Green Jobs Act: Increase appropriation for the Green
  Jobs Act, authorized in the 2007 Energy Independence and Security Act to \$250 million
  to provide job training and workforce investment in energy efficiency and renewableenergy installations.
- Green jobs restoring the land: Expand existing programs by \$800 million to restore parkland, forests, wetlands, wildlife refuges, and rural ecosystems.
- **Manufacturing Extension Partnership:** Expand the capacity of domestic manufacturing modernization efforts by increasing MEP funding to \$200 million.
- Advanced coal technology to capture carbon: Invest \$1.1 billion to deploy demonstration carbon capture-and-storage technology at a coal-fired power plant.
- Additional green infrastructure for clean water: Invest in broader community benefits and green jobs with \$3 billion in green storm water infrastructure.

## Near-term stimulus investments

There are many immediate opportunities to invest today in America's energy independence that will expand the U.S. economy, promote construction and manufacturing jobs, and save consumers money on energy bills.

## Transit agencies and ready-to-go transportation projects: \$2 billion

The recent energy bill passed by the House included a key provision for transit: the Saving Energy Through Public Transportation Act, or H.R. 6052, which passed by a vote of 322-98. The bill reduces transit fares for commuter rail and buses and expands service through \$1.7 billion in grants to transit agencies for the next two years. One billion dollars of these funds could be moved immediately and used to defray the escalating operating costs of public transportation, preserve jobs and service quality in existing transit agencies, and be available to both rural and urban areas.

The recently passed Passenger Rail Investment and Improvement Act also authorized \$500 million for Amtrak and state intercity rail corridor investments. This money could flow rapidly into needed construction investments. An additional \$500 million could fund ready-to-go bicycling and pedestrian facilities that connect transportation networks, improve safety, and provide least-cost transportation options. These urgently needed transportation funds should be included in a near-term package of stimulus spending to put more money back into communities while reducing oil consumption and offering relief to consumers.

## Refundable residential energy efficiency tax credits: \$5 billion

Escalating fuel costs will elevate Americans' heating bills this winter by up to \$700 more than just two years ago. Amid an economic downturn, American homeowners simply cannot afford to let up to half of their purchased energy leak out of their homes through inefficiencies. The economic value of these wasted resources is significant enough when taken in aggregate that it offers a compelling business opportunity for utilities, banks, and contractors.

This tax credit program seeks to overcome market barriers that have plagued existing home retrofits by rebating up to \$2,000 per household for purchase of qualified energyefficient products such as building insulation, windows, doors, roofs, and efficient appliances, including water heaters, furnaces, boilers, heat pumps, and air conditioners. This program, already administered by the Environmental Protection Agency and Internal Revenue Service with a \$500 cap should be advertized heavily to target low- and moderate-income homeowners who might not otherwise qualify for low-income weatherization assistance but are nonetheless struggling under increased energy bills.

# Clean Renewable Energy Bonds: \$5 billion

Under the Clean Renewable Energy Bond, or CREB, program, state and tribal governments and various public and cooperative utilities can apply to the Internal Revenue Service for authority to issue renewable energy bonds. The interest on these bonds is tax free to the holder. The interest rate is set by the Treasury so that the price of the bond will be competitive with interest bearing bonds, and the interest paid out by the borrowing entity is reimbursed each quarter by the federal government, the equivalent of giving out interest-free loans.

#### Cash for Clunkers: \$7.5 billion

Cars that are over 12 years old account for only 25 percent of miles driven nationally, but produce 75 percent of all vehicle pollution, and are 10 to 30 times more polluting than newer models. And when gas prices rise, Americans driving these older, less-efficient vehicles are the most acutely affected—straining household budgets, reducing consumer spending on other goods and services, and exacerbating the slowdown in the economy.

The federal government should initiate and fund an incentive program to purchase and scrap old, inefficient, and polluting vehicles. "Cash for Clunkers" would be overseen by the EPA but managed by automobile dealers, who would take in used vehicles, disburse the payment, and sell the vehicles to salvage yards, and then return the proceeds from reclaimed steel and used auto parts to the U.S. Treasury.

The average premium per car would be \$2,500, including handling fees for dealers, which means the program would require an annual outlay of approximately \$2.5 billion dollars to scrap 1 million gas guzzlers each year, for three years. The total cost of the program would be offset substantially by the high salvage value of steel and auto parts, which is on the rise. At current scrap prices, each heavy clunker would net nearly \$1,000, thus reducing the cost of the program by nearly a third.

# Weatherization Assistance Program: \$500 million

WAP has provided weatherization retrofits to 5.6 million low-income families over the past 29 years. Yet there are still 34 million families whose income levels make them eligible, and the Department of Energy estimates that 15 million of these are good candidates for costeffective weatherization. Increasing funding to \$900 million could support the retrofit of as many as 350,000 to 400,000 homes, and would be an important first step toward meeting the goal of establishing a sustained program to weatherize 1 million homes each year.

By DOE calculations, WAP produces \$3.71 in energy and non-energy related benefits for every \$1.00 in federal funds invested. WAP reduces low-income energy bills by an average of 21 percent—\$358 per year, based on 2005 spending levels—and creates 52 direct jobs for every \$1 million in WAP funding, as well as additional jobs for subcontractors and material suppliers.<sup>4</sup>

WAP is consistently underfunded. The program was authorized at \$700 million in fiscal year 2008, but only funded at \$227.2 million.<sup>5</sup> Our proposed funding increase represents a significant scaling of the program. The 10 percent allocation for training, technical assistance, and monitoring should therefore be stepped up to 25 to 35 percent for funding above \$500 million on a one-time basis to build capacity. WAP is a highly effective program that serves the neediest Americans while building local businesses, strengthening local economies, and saving consumers on energy bills.

# Near-term recovery investments

There is an immediate need for short-term stimulus investments that can be spent within a matter of months. A near-term recovery package of investment over a 6- to 18-month timeframe is also needed to rebuild infrastructure and provide a rapid transition to a clean energy economy that will help ensure a sustained economic recovery.

# Energy Efficiency and Conservation Block Grant Program: \$6 billion

A top priority for clean energy and infrastructure investments in a new economic recovery package should be to fully fund—and expand—support for the Energy Efficiency and Conservation Block Grant Program. These block grants authorize \$2 billion annually over five years to fund projects that cut total energy use, reduce fossil fuel dependence, or improve energy efficiency in buildings, transportation, and other sectors. But no funds have yet been allocated.

The program is strongly supported by mayors and local governments, and drives new resources directly to states, cities, and counties to support a diverse range of needed energy services such as retrofitting public buildings, deploying renewable energy systems, and enhancing building code enforcement and education. This funding could move resources rapidly to local communities, where it would be invested in real energy efficient and green construction projects using a proven strategy for distribution.

Given the failure over the past decade to invest in communities, the backlog of needs is tremendous at the city and county levels. While \$2 billion was authorized in the recent energy bill, the U.S. Conference of Mayors estimates that easily three times that amount of funding could be rapidly absorbed by state and local governments and would

go immediately into identified and beneficial clean energy infrastructure and retrofit projects in local communities across the country. This block grant program is poised to be a centerpiece of driving new recovery funds directly into communities where it can do the most good, and it should receive the highest level of attention in designing a program of economic recovery.

# Solar roofs on federal buildings: 3.5 billion

With 500,000 buildings, the federal government represents about 0.5 percent of the entire U.S. building inventory and is the largest energy consumer in the country. Each year, U.S. taxpayers spend more than \$3 billion to heat, cool, light, and power those buildings. Moreover, the Energy Policy Act of 2005, Executive Order 13123, and Executive Order 13423 instruct the federal government to reduce its carbon footprint by 30 percent and procure 50 percent of its renewable energy through new renewable projects. A massive investment in solar energy to power the federal government could achieve these goals while lowering electricity bills, reducing carbon emissions, and advancing energy security.

Rooftops of federally owned buildings have an estimated capacity to support at least 2,000 MW of solar, an investment that would supply 5 percent of federal electricity demand and provide approximately 126,000 new job-years of employment spread throughout the economy. This is also an investment which could move quickly: Previous government solar projects have taken only 6 months to bring online, from contract ink to commissioning. The incremental cost to taxpayers of installing at least 2,000 MW of onsite solar PV, using frontloaded power purchasing agreements, would range from \$2 billion to \$3.5 billion.

The Federal Energy Management Program should immediately begin to develop 2,000 MW of solar on federal properties, and the General Services Administration should issue a Request for Proposal by January 31, 2009. However, to enable the long-term power purchasing agreements necessary for taxpayers to recover their investment, the federal government must adapt its contracting to allow for 30-year electricity contracts for renewable energy PPAs. This policy was included in early House versions of the Energy Policy Act. Further, the Federal Tax Credit should not be used for these projects, so that federal purchasing does not compete with local government and commercial projects for resources.

## "New Starts" Transit project investments: \$6.6 billion

The federal government should fully fund the Federal Transit Administration's New Starts Transit Funding as authorized in the "Safe, Accountable, Flexible, Efficient Transportation Equity Act—A Legacy for Users." This will support locally planned, implemented, and operated major transit capital investments. The New Starts program funds new projects and extensions to existing transit systems across the country, including commuter rail,

light rail, heavy rail, bus rapid transit, streetcars, subways, and ferries. These capital-intensive construction projects are prolific job creators, and also help reduce congestion and oil consumption, increase worker productivity, and improve local air quality.

## Green school construction and renovation: \$7.25 billion

There is a tremendous existing backlog of school modernization projects in communities across America. It is important to make sure that these investments in our nation's classrooms are completed in accordance with the highest green standards to reduce global warming emissions and wasted energy, as well as save money for municipal school systems—money that can be better spent on books and teachers.

What's more, green school modernization has been shown to improve student health and academic performance. H.R. 3021, the 21st Century Green High-Performing Public School Facilities Act, passed the House by 250-164 and directed the secretary of education to make grants to state educational agencies for the modernization, renovation, or repair of public school facilities. This program authorized \$6.5 billion in funds for green school construction and renovation projects in fiscal year 2009.

H.R. 6, the Energy Independence and Security Act of 2007 (Section 471), creates currently unfunded grant and loan programs to support institutions of higher learning, school districts, local governments, and municipal utilities in their efforts to help meet our energy challenges. It would allocate \$750 million per year for this purpose through grants and loans. These programs together offer concrete mechanisms for directing desperately needed funds to improve the quality and performance of our nation's school system, and they ensure that new investments help build local markets for skilled green construction.

# Green affordable housing HOME block grants: \$1 billion

The HOME program is a block grant administered by states and cities mainly for the rehabilitation and construction of rental and owner-occupied homes for low-income families. HOME has a highly successful 15-year track record, and strong bipartisan support in Congress and among governors and mayors.

HOME already includes measures that directly increase the energy efficiency of affordable homes. But these uses could be specified as the only eligible uses of additional funds appropriated through a stimulus bill. HOME's state/local match requirement should also be waived with respect to these funds, given the challenges facing many state and local budgets.

HOME utilizes a proven and effective delivery system: state and local housing agencies, and the developers and owners of affordable housing. The program is a necessary

and effective complement to any additional funding for the Weatherization Assistance Program, as the weatherization program generally serves single-family homes, not multiunit rentals, where most low-income people live. A \$1 billion investment in HOME could cut energy use by 20 to 30 percent in 300,000 low-income homes and apartments, avoid up to 600,000 tons of carbon emissions on an annual basis, and create thousands of wellpaying green and conventional jobs.

## HOPE VI program for green community revitalization: \$800 million

HOPE VI provides grants to cities to create mixed-income communities in place of distressed public housing sites. The program has worked well in attracting private investment, generating economic activity, and helping stabilize troubled communities.

The House of Representatives passed the HOPE VI Improvement and Reauthorization Act of 2007, or H.R. 3524, in January 2008 by a wide bipartisan margin. The bill authorized \$800 million annually from 2008-2013 for mixed-income communities that incorporate Green Communities Criteria. The criteria are a holistic environment framework for green affordable housing in wide use around the country. Energy efficiency, based on Energy Star and other proven approaches, is a core component of the criteria.

The bill requires new HOPE VI revitalization projects to meet the Green Communities Criteria for residential construction. It also requires the Department of Housing and Urban Development secretary to choose an appropriate green rating system for non-residential buildings. And it provides funding for technical assistance to ensure developments can meet the green requirements cost effectively.

A broad-based coalition of governors, mayors, trade associations, environmental organizations, public health groups, very low-income housing advocates, and green building leaders actively advocated for the green provisions in the bill. The proposal would create thousands of new and rehabilitated rental and owner-occupied homes for very lowincome people that meet and exceed the Energy Star standards, with significant energy savings, carbon reductions, and job opportunities in low-income communities.

# Smart grid federal matching funds: \$1.3 billion

Congress should consider immediate funding for smart grid technology as part of a comprehensive effort to stimulate greater economic activity in the United States. Congress should fully fund and expand the Smart Grid Title (Title XIII) of the Energy Independence and Security Act of 2007, including the Smart Grid Regional Demonstration Initiative, the Smart Grid Investment Matching Grant Program, and establishing a "21st Century Electricity System Security and Modernization Fund."

These energy-related infrastructure investments significantly enhance the efficient production, delivery, and consumption of energy across all sectors; improve the reliability and affordability of electricity use; reduce the carbon intensity of the electricity consumed; and maintain a high level of national security. There has been a recent explosion of innovation in the electricity sector based on the ability to cheaply measure, communicate, and control much more detailed information on the consumption of electricity from equipment and appliances, electricity generation from distributed renewable resources such as wind and solar, and the local and system value of storing electricity.

Federal funding is critical to accelerate smart grid technology adoption at scale. In the near term, the smart grid represents rapidly deployable infrastructure investment. Over the next decade, these new technologies will save the economy billions of dollars in lost productivity due to power outages. They will also significantly reduce carbon intensity and enable more rapid economic growth and millions of new jobs. New funding under a stimulus or recovery package could be rapidly deployed through the following three programs:

- Enhanced research and development (\$200 million): Enhanced research programs at universities are particularly important for providing future well-trained staff for an industry where the average age is over 50, as well as developing new technology and standards. The Energy Independence and Security Act of 2007 in Section 1304 authorizes this funding for "sums as appropriate."
- Regional demonstration projects (\$100 million): Diversity across the industry makes it critical to fund a variety of regionally unique demonstrations to prove the costs/benefits, new technologies, new systems, and new business models, at a scale that can be easily planned and replicated around the country. The Energy Independence and Security Act authorized \$100 per year for five years starting in FY2008, but no funds have been appropriated to date.
- Federal matching funds for smart grid investments (\$1 billion): Section 1306 of the Energy Independence and Security Act of 2007 authorizes "federal matching funds for smart grid investments." The section authorizes the Department of Energy to reimburse any smart grid project for 20 percent of the "qualified" costs. The criteria are spelled out in detail in the EISA. This would be run through a new DOE grant program with details of the process outlined in the EISA. The bill authorizes "sums as are necessary." At the rate of 20 percent, the federal funding is leveraged into a total of \$5 billion of infrastructure investment in 2009. At a \$1 billion funding level, more than 1 million houses and businesses would be installed and integrated into a utilitylevel operating system.

#### Workforce investment in the Green Jobs Act: \$250 million

The Center for American Progress strongly supports full funding—and an expansion—of the Green Jobs Act, authorized in the 2007 Energy Independence and Security Act at \$125 million per year. The Green Jobs Act would provide job training and workforce investment to build a skilled workforce to undertake energy efficiency upgrades and renewable energy installations. The act could support smart workforce development that ensures a skilled and ready workforce to fill jobs in the construction of green infrastructure, installation of energy efficient technologies, and building of a renewable energy industry. It is smart policy, and would put money directly into the pockets of workers, investing in their skills for workforce participation in a rapidly changing and increasingly green economy.

The need for new job training, and specifically forward-looking green job training, has grown dramatically in the last year. This allocation could easily be increased to support more on-the-ground apprenticeship and job-training programs to meet the growing demand for green construction professionals. Appropriating funds immediately to train workers for jobs in energy efficiency retrofits and renewable energy installation would be a substantial support to expanded weatherization and green building efforts envisioned elsewhere in this green recovery package. The Department of Labor has offered assurances that the current allocation could be moved out into the field within three months, ensuring that this could be an effective element in a stimulus package.

# Green jobs restoring the land: \$800 million

Congress should invest in existing programs that focus on restoring the capacity of healthy landscapes to fight global warming. The Public Land Corps; Youth Conservations Corps; AmeriCorps Environmental Restoration Program; The Coastal Wetlands Planning, Protection and Restoration Act; Legacy Roads and Remediation Program; National Wildlife Refuge System; and other public lands programs are authorized and ready to ramp up, but are perennially underfunded.

These programs perform valuable work helping natural systems capture and store vast amounts of global warming pollution while protecting communities from degradation and deforestation. Their activities include restoring native forest and grassland structure, increasing ecosystem resilience, protecting habitat for threatened and endangered fish and wildlife, removing invasive species, and replanting native tree species in both urban and rural settings. This work would also provide jobs and save money through the creation of fire-defensible spaces within community protection zones to protect at-risk communities, create a flexible workforce for wildland fire management, and accommodate the use of natural fire in managing vulnerable landscapes.

# Manufacturing Extension Partnership: \$200 million

The Manufacturing Extension Partnership is a proven and highly effective program for supporting small- and medium-size American manufacturing firms as they modernize to remain competitive and retain jobs. A green recovery package should invest \$200 million for MEP to directly put new investment into the economy, while positioning American companies to succeed over the long term. This budget represents a doubling of current spending for this nationwide network of 1,600 industry experts who provide technical and competitiveness assistance to manufacturers.

MEP is well positioned to rapidly spend any additional funds on increased services. Linking new, reengineered, and emerging energy technologies to the domestic supply chain is a strategic priority for the creation and retention of manufacturing jobs, as well as a foundation for building a clean energy economy. The increased funding should assist firms in understanding the demands of new markets for clean energy technology, meeting the technical specifications and standards required by these growing industries, and making their own operations more energy efficient.

# Advanced coal technology to capture carbon: \$1.1 billion

Immediate investment is needed in coal technology that can prevent the release of greenhouse gasses into the atmosphere. This technology will be needed to meet future carbon emission reduction needs. The recently postponed FutureGen project is the most advanced carbon capture-and-storage, or CCS, project in the world. The exact contract language may need to be revisited—a stipulation should be attached to the stimulus money—but site selection (Matoon, Illinois) and environmental impact statements have already been completed. Liability and property rights issues have been resolved, preliminary design work is also completed, and equipment specifications are ready to go.

The construction process was originally slated to start in 2009, with the plant coming online in 2012. Only the Department of Energy's decision to pull back money they had awarded to FutureGen put the project on hold. Yet research and development work continues, and there is a reasonable prospect of beginning construction in the next 12 to 18 months if the project were immediately put back on track.

The FutureGen Alliance has estimated that the project will create 600-700 construction jobs at its peak, plus many direct jobs in manufacturing and in the related transportation, operation, and maintenance needs of the new facility. This project offers both a down payment on a long-term investment in a clean energy economy and a contribution to near-term economic recovery.

# Additional green infrastructure for clean water: \$3 billion

Congress should invest \$3 billion in clean water infrastructure for FY09. This is the same level contained in legislation that passed the full House, and \$200 million less than the level approved by the Senate Environment and Public Works Committee. The Clean Water State Revolving Fund helps pay for critical storm water and waste water needs across the country, such as advanced sewage treatment, reduction in raw sewage overflows, protection of drinking water sources, treatment of toxic runoff from streets and highways, and use of best management practices to reduce farm runoff. These funds are matched at the state level, and sometimes also the local level, so that money spent by the federal government receives a return on investment of 2.23 times.

Congress should specify what kinds of projects are eligible for funding, and specifically include on-site source controls, stream buffers, conservation practices, water reuse, and other approaches to prevent pollution, to ensure that these funds are spent more wisely. These kinds of "green infrastructure" solutions use soil and vegetation to mimic natural processes to protect and enhance environmental quality and provide utility services. The use of green infrastructure creates jobs for architects, designers, engineers, construction workers, maintenance workers, and a variety of small businesses engaged in designing and building green roofs, rain gardens, and tree boxes, among other things.

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#### **Endnotes**

- 1 Bureau of Labor Statistics, "Employment Situation Summary," October 2008, available at http://www.bls.gov/news.release/empsit.nr0.htm
- 2 U.S. Census Bureau and U.S. Department of Housing and Urban Development, "New Residential Construction in September 2008," Joint News Release, October 17, 2008, available at http://www.census.gov/const/newresconst.pdf (New construction data available Wednesday, October 17 at 8:30am EST).
- 3 Standard and Poor's, "National Trend of Home Price Declines Continues into the Second Half of 2008 According to the S&P/Case-Shiller Home Price Indices," Press Release, October 28, 2008, available at http://www2.standardandpoors.com/spf/pdf/index/CSHomePrice Release 102831.pdf.
- 4 Weather Assistance Program information can be found at <a href="http://www.waptac.org/si.asp?id=1029">http://www.waptac.org/si.asp?id=1029</a>.
- 5 U.S. Department of Energy, "Sources of Funding for the Weatherization Assistance Program," available at http://www.eere.energy.gov/weatherization/source fund.cfm

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