

WRI FACT SHEET

Mitigating Recession: How Stimulus Policies Can Serve Economic and Environmental Goals

As they respond to the worst economic crisis the United States has faced in half a century, policymakers seek to direct government spending in ways that not only generate short-term growth and employment but also address long-term policy goals sidelined by the current crisis. Chief among these are energy and environmental objectives, as evidenced by the considerable attention paid to “green” economic recovery by policymakers and the press.

This fact sheet, extracted from a longer Policy Brief (see www.wri.org/publication/green-global-recovery) by the World Resources Institute and the Peterson Institute for International Economics, provides policy makers with a timely framework for evaluating ways to maximize economic recovery efforts while also meeting energy and climate-policy goals. It assesses 11 “green” policy options under consideration by Congress for their economic and environmental impact against a backdrop of pending climate legislation.¹

ECONOMIC BENEFITS

- Well-tailored green components of a recovery effort can create jobs and stimulate the economy while achieving significant energy cost savings for businesses, consumers, and the government.
- Recovery policies currently under consideration have the potential to reduce demand for fossil fuels. The resulting drop in cost and consumption of energy has the potential to save Americans an average of \$450 million per year for every \$1 billion invested, serving as an “efficiency pay-go” for current fiscal spending.
- By returning money to households through lower energy bills, green components of a recovery package combine the employment benefits of tax cuts with the construction and manufacturing jobs created through infrastructure investment. On average, green recovery programs create 30,000 jobs for every \$1 billion in government spending.

The matrix below illustrates how the 11 policy options measure up in terms of speed of deployment and potential for job creation. It also shows how more environmentally friendly policy options can produce added value compared with road investment – an example of traditional infrastructure spending. Road building is matched by several

of our “green” options in terms of speed of deployment and job creation, but produces a negative effect on energy costs, energy security, and climate change abatement.

ENVIRONMENTAL BENEFITS

While the primary goal of the recovery package is to encourage economic growth, a “green” recovery can lay the foundation for achieving climate change and energy goals. Nevertheless, even the most aggressive short-term “green” spending will have only a modest direct impact on carbon dioxide emissions. The recovery package alone would fall far short of the billions of tons of reductions necessary to stabilize the climate – and on a price per ton basis, would be more costly than the comprehensive climate change policies under consideration by Congress.

It is nonetheless critically important that all recovery efforts be designed to complement, rather than replace climate change and energy policies down the road. In order to maximize the effectiveness of such future climate and energy programs, while reducing their costs, an economic recovery package should focus on:

- **Inefficient responses to price signals:** Our report identifies several profitable or low-cost opportunities to reduce energy demand and carbon dioxide emissions

A GREEN RECOVERY: Impacts per billion dollars of government spending

Green Programs	Approximate impact	Speed	Employment	Energy Savings	Energy Security	Climate Change
		How quickly the money gets spent	Job-years created	Long-term energy cost reductions	Reduction in U.S. oil imports	Direct emission reductions
Household Weatherization	Weatherize 377,000 homes	●	●	●	●	●
Federal Building Retrofits	Reduce Federal energy consumption by 8 trillion BTU	●	●	●	●	●
Green School Construction	Improve efficiency of all new schools by 33 percent	●	●	●	●	●
Production Tax Credit Extension	Incentivize 1,500 megawatts of additional wind generation capacity	●	●	●	●	●
Investment Tax Credit Increase	Incentivize 300 megawatts of additional solar power	●	●	●	●	●
Carbon Capture and Storage Demo Projects	Fund the CCS component of a 500 MW demonstration project	●	●	●	●	●
Cash for Clunkers	500,000 vehicles traded in	●	●	●	●	●
Hybrid Tax Credit	Incentivize the purchase of 190,000 hybrids	●	●	●	●	●
Battery Research & Dev.	FreedomCAR objectives met	●	●	●	●	●
Mass Transit	Decrease vehicle-miles travelled by 18 million per year	●	●	●	●	●
Smart Grid	Install smart meters on 4.4 million homes	●	●	●	●	●
Other Programs						
Tax Cuts	Increase consumer spending by \$333 million	●	●	—	—	—
Road Investment	Increase vehicle-miles travelled by 11 million per year	●	●	●	●	●
<p>● High impact ● Low impact</p> <p>● Moderate impact ● Negative impact</p>						

from consumers that do not effectively respond to a price on carbon. For example, energy efficiency retrofits can reduce emissions from buildings that are not likely to be responsive to a future cap and trade's price signal alone.

- **Technology hurdles:** Uncertainty about the availability of critical low-carbon energy technology creates anxiety about the future cost of climate change policy. This is particularly true in the transport sector, where high barriers to technological change in transportation make weaning the country off foreign sources of energy expensive. Policies adopted today, such as next generation battery R&D can help

accelerate technology development and cut the cost of reducing emissions and oil imports down the road.

- **Infrastructure bottlenecks:** The deployment of low-carbon technology and the facilitation of less oil-dependent lifestyles also depend on enabling infrastructure. Whether via electricity transmission, carbon dioxide pipelines, or mass transit, the federal government will play a role in building and regulating the infrastructure that facilitates future energy and climate goals. Many of those investments can begin today.

Note

1. Methodology: To assess the energy and environmental impact of our 11 "green recovery" programs WRI and the Peterson Institute used the Energy Information Administration's National Energy Modeling System (NEMS), specifically that used in the just released Annual Energy Outlook for the U.S. Department of Energy. This enabled us to capture recent changes in policy, energy prices and technology costs. We also used modifications to the NEMS model which simulated the impact of the Lieberman-Warner Climate Security Act, in order to assess how the 11 programs could impact future climate policy costs and contours. Finally, we estimated employment impacts by using the input-output tables from the Department of Commerce's Bureau of Economic Analysis.

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