Clean Energy in the Stimulus Package and Washington Opportunities

On February 17th, 2009, President Obama signed the historic American Recovery and Reinvestment Act (H.R. 1). This law will inject $787 billion into new programs and tax incentives to stimulate the economy. The Act includes approximately $71 billion in investments in clean energy and energy efficiency, as well as approximately $20 billion in clean energy tax incentives. The stimulus bill contains unprecedented investments in each of the areas that Climate Solutions had advocated for: energy efficiency, smart grid, renewable energy, clean vehicles/transit and green job training. The Act contains significant opportunities for Northwest businesses and communities. We can capitalize on our leadership in these sectors both to modernize our energy infrastructure and to sell clean products and services to the rest of the country. The green elements of the package also reflect a significant victory for many groups, including Climate Solutions, who have been working hard to insure that we begin to invest in a new energy future.

Below are some of the key elements of the stimulus package that relate to clean energy.

Energy Efficiency Measures

The stimulus includes approximately $25.8 billion in direct spending and $2.9 billion in tax incentives for building and appliance energy efficiency measures. $4.5 billion in direct spending will go to the Federal Green Buildings program and $4.36 billion to the Dept. of Defense to support modernization and energy efficiency upgrades of federal buildings and defense facilities. Both programs will save taxpayers millions of dollars annually in federal energy costs.

In Washington, the Department of Community, Trade and Economic Development administers three programs that will receive major increases in funding. The Weatherization Assistance Program will receive an additional $5 billion to improve the efficiency of low-income households. $3.1 billion will go to the State Energy Program to address state energy priorities and the adoption of emerging renewable energy and energy efficiency technologies. An additional $3.2 billion will be used for Energy Efficiency and Conservation Block grants, to support projects that reduce emissions and energy use and improve energy efficiency in the transportation, building and other sectors.

With buildings representing approximately 40% of U.S. carbon dioxide emissions and 71% of U.S. electricity consumption, these efficiency investments will both save money and reduce climate pollution.

Smart Grid/Transmission Investments

H.R. 1 includes $17 billion for smart grid/transmission investments, including $4.5 billion for the Electricity and Energy Reliability Program. Of direct interest to the Northwest, the bill also includes $3.25 billion to increase the borrowing authority of the BPA. The bill includes $6 billion for renewable energy and transmission line construction loan guarantees.

The Electricity and Energy Reliability Program funds will be available for expenses necessary for electricity delivery and energy reliability activities to modernize the electric grid. Washington is well positioned to benefit from a large percentage of the BPA funds. The BPA will use the funds to finance

upgrades to its grid, eliminate transmission bottlenecks and build new lines to wind power projects. The loan guarantees for smart grid/transmission are expected to support more than $60 billion in loans for eligible projects.

Renewable Energy

The stimulus bill includes approximately $6.4 billion in direct spending and $16.5 billion in tax incentives for renewable energy research and development projects. Notable elements of direct spending include $2.5 billion for renewable energy research to be administered by the federal Department of Energy, including $800 million for biomass projects and $400 million for geothermal activities and projects, and $3.4 billion for carbon capture and sequestration research.

The largest renewable energy tax feature is a three-year extension of the Production Tax Credit for wind and other renewable energy projects ($13.1 billion cost over 10 years). The extension should dramatically improve the financing of these projects, which has been difficult recently due to the credit crisis and poor economic outlook. Importantly, the bill allows developers the temporary ability to elect the investment tax credit in lieu of the production tax credit ($285 million), and to take the tax credit as a direct grant. The bill also removes the dollar limitations on certain energy tax credits ($872 million), increases the amount available for clean renewable energy bonds (CREBs) ($578 million) and the Advanced Energy Investment Credit ($1.65 billion).

Clean Vehicles and Transit Projects

The stimulus package marks a new direction for sustainable transportation. It contains $21 billion in direct spending and $2.53 billion in tax incentives for clean vehicle and transit-related measures. Transit measures include $9.3 billion for Amtrak and high-speed rail, as well $8.4 billion for investments in public transportation, including $100 million in discretionary grants for reduction of energy consumption and greenhouse gas emissions. Clean vehicle spending includes $300 million for federal purchases of alternative fuel vehicles and plug-in hybrids, $400 million for electrical infrastructure projects that encourage the use of plug-in electric drive and $2 billion for advanced battery research loans and grants. The tax provisions include a $2,500 tax credit for plug-in electric vehicles and an additional tax credit for plug-in vehicles with battery propulsion. The credit will remain available until 200,000 vehicles are sold beginning after December 31, 2009.

Green Jobs Training

H.R. 1 includes $500 million to fully fund the Green Jobs Act of 2007 to support job training programs in energy efficiency and renewable energy. An additional $3.45 billion was allocated for training and employment activities under the Workforce Investment Act and states will have some discretion to direct such funds to further green jobs training. Washington has been a national leader in this area and can capitalize on these opportunities. These job training investments should serve our state well as we work to build a clean energy economy.

Policy Nuggets

In addition to critical investment dollars for clean energy, the bill also contains a several provisions that will drive energy policy. For example, section 410 of the Act requires states receiving

certain grants for energy efficiency and renewable energy to adopt policies that ensure that utilities have appropriate financial incentives to invest in energy efficiency measures. This provision will spur state policies to "decouple" utility profits from the amount of power that they are able to sell. The same section also requires participating states to adopt modern building codes and develop a plan to ensure that 90% of new construction and retrofits will meet the code within eight years.

Need for Comprehensive Climate Legislation and Additional Investment

While the clean energy investments and tax incentives in the stimulus mark an unprecedented step toward a new green economy and will help speed the recovery from the current recession, we cannot rely on them alone to reduce global warming pollution without strong policy action. To drive needed reductions and ensure economic leadership, we will need to swiftly enact comprehensive climate legislation that includes emissions limits. *A Green Global Recovery? Assessing US Economic Stimulus and the Prospects for International Coordination*, Peterson Institute for International Economics, Feb. 10, 2009. The green elements of the stimulus package should be seen as a critical down payment on needed investments in a clean economy. They mark a new direction in our priorities. The new technologies and jobs created under the stimulus bill will ease our transition to a low carbon economy, increase America's competitiveness in the global economy, and reduce the costs and barriers to legislation that prices carbon and caps emissions. Progress on climate change and economic leadership will require a comprehensive policy framework and continued public and private investments in energy efficiency and renewable energy projects.

Estimated Clean Energy Dollars and Potential Washington Share

($ in millions)	U.S.			Washington Estimate		
	Direct Spending	Tax Provisions	Total	Direct Spending	Tax Provisions	Total
Energy Efficiency	25,770	2,911	28,681	509	65	574
Smart Grid	17,000	0	17,000	1,537	0	1,537
Renewable Energy	6,415	16,525	22,940	102	376	478
Clean Vehicles/Transit	21,000	2,536	23,536	458	57	515
Green Job Training	1,498	0	1,498	34	0	34
Total	71,683	21,972	93,655	2,640	499	3,138
					High Estimate	4,426
					Low Estimate	2,051

Note: The Washington State allocations in this table and the attached spreadsheet are estimates, in most cases based on Washington's percentage of 2007 U.S. GDP. These estimates also do not include the potential for Washington companies to benefit from selling goods and services outside the state to meet the markets for clean and efficient energy that will be increased in the bill. Actual allocations may be significantly lower or higher based on a variety of factors.

Read the final text of the Act: **www.whitehouse.gov/the_press_office/ARRA_public_review/**

About Climate Solutions
Climate Solutions is a not-for-profit organization whose mission is to accelerate practical and profitable solutions to global warming by galvanizing leadership, growing investment, and bridging divides in the Pacific Northwest. Since its inception in 1998, Climate Solutions has been the foremost champion of Northwest climate and clean energy leadership that generates economic opportunities for Northwest businesses and workers. Working with a broad array of partners from business, rural, government, and the public-interest community, Climate Solutions helps to advance a new sustainable prosperity in the Northwest that accelerates the technologies, policies, and enterprises that can deliver climate solutions to the world. Climate Solutions has offices in Seattle, Olympia, Portland and Missoula. To learn more, visit www.climatesolutions.org.

About the Authors

Ross Macfarlane is Senior Advisor and manages the business partnership program for Climate Solutions. He has more than 25 years experience in public policy and law. More information can be found here, **http://climatesolutions.org/?s=staff**. He can be reached at 206-443-9570, x. 26, or at **ross@climatesolutions.org**.

Greg Papciak is a corporate attorney, specializing in work for emerging growth companies, and a volunteer with Climate Solutions. His legal practice focuses on venture capital financings, public offerings, mergers and acquisitions and intellectual property licensing, as well as general corporate and securities matters. He has practiced in Seattle with Venture Law Group, Heller Ehrman and Cooley Godward. He can be reached at 206-499-0824 or **gpapciak@gmail.com**.

Daniel Malarkey is an economist and consultant to clean tech companies. He worked in senior management at Amazon.com and at several area start-ups including a biofuels company he founded and sold in 2007. He can be reached at 206-310-9385 or at **daniel.j.malarkey@gmail.com.**