Economic Stimulus Energy Efficiency

Testimony before the Committee on Energy and Natural Resources
United States Senate

Joe Loper
Senior Vice President, Alliance to Save Energy

December 10, 2008

Good Morning, Chairman Bingaman and Ranking Member Domenici. My name is Joe Loper and I am the Vice President for Policy and Research at the Alliance to Save Energy. As you are aware, the Alliance mission is to promote energy efficiency worldwide. The Alliance works closely with a broad and diverse group of stakeholders, including suppliers of energy efficient equipment and services, electric utilities, oil and gas suppliers, large and small energy consumers, environmental organizations and federal, state and local government agencies.

For 30 years, the Alliance has promoted federal policies to increase the nation's energy efficiency. There has never been a more important moment than now to initiate a serious and aggressive energy efficiency program for this nation. I want to thank you and the Committee for the opportunity to discuss the critical need to use energy efficiency as a means to stimulate the economy, while creating jobs, lowering energy costs to the consumer, and making our country more energy secure.

The economy is in serious trouble. We lost 2 million jobs lost last year, the worst since the oil crisis of 1974. More than $10 trillion worth of wealth in homes and stocks has evaporated since this time last year.[i] Economic news suggests we are in for a longer and deeper slump than we have seen for at least the last couple decades. We need to do something.

But given the sharply rising federal deficit, it is all the more important to make sure that any incremental spending seen as essential for economic recovery also yields long term value. The ability of the stimulus package to increase confidence of businesses and consumers and banks will be enhanced if it is perceived as being part of a grander strategy.[ii] If the stimulus is used as a down payment on a new energy economy or to prepare for climate legislation, our children will inherit something more than debt.

Energy Efficiency: The Front Line of the Clean Energy Economy

Energy efficiency is the cleanest, easiest and least expensive energy and carbon abatement resource. It is widely seen as the first response to climate change, energy security and other energy challenges. The US Chamber of Commerce, in a report released in September, said "the next best source of new energy is the energy we can save every day."[iii] Energy efficiency is unique among energy resources. It is a low-cost

resource. It has few carbon emissions. And there are no battleships are required. The energy we save is a domestic resource, a secure one that we control, and most importantly, one that produces jobs here in America.

Energy efficiency is already a big part of the nation's energy economy – a silent partner in meeting the nation's demand for energy services. If not for energy efficiency improvements made since 1973, America's energy bill and related carbon emissions would be 50 percent higher (150 quads instead of 100 quads).

Energy efficiency can contribute even more to the nation's energy economy – McKinsey estimates that base case demand in 2020 can be reduced by 21% of using technologies and practices available today[iv]. But that doesn't mean it's free or always easy. Significant barriers to wider acceptance of EE must be overcome, including lack of consumer awareness and know-how, split incentives (e.g., where the landlord buys the appliances, but the renter pays the energy bill), and lack of up-front investment capital.

Fully exploiting the potential of energy efficiency will require significant government leadership and a combination of public and private investments. It's a familiar story -- When the economy is good, there's no time, when the economy is bad, there's no money. The stimulus package offers a rare (perhaps unique) opportunity to overcome this "cycle of complacency."

Fiscal Stimulus: A Down Payment on the Clean Energy Economy

Several years ago the Alliance brought together a coalition of two dozen organizations and businesses (see attached list) and businesses to advocate for robust energy efficiency appropriations. For the past five weeks the coalition has been working on developing a list of stimulus program activities. In developing these recommendations, the coalition was guided by the following five principles:

- Timely -- Recognizing that one of the major objectives of the fiscal stimulus is to move money into the economy, we selected activities suitable for a two-year funding cycle.
- Existing programs or institutions -- The coalition looked for existing programs and institutions that can effectively absorb and spend the funds in a short time. This will help to ensure that the rapid expansion of programs not be allowed to undermine the effectiveness of those programs.
- Emphasis on training and infrastructure development -- The energy efficiency deployment infrastructure can build up fast, especially in time of high unemployment, but it requires training and infrastructure development. This should be a major focus of a green stimulus package.
- Targeted -- The coalition has directed a significant amount of activity toward low-income and unemployed people, providing direct assistance to reduce their energy bills as well as training for future employment.

- Lasting benefits – Finally, we focused our recommendations on activities that will provide real and lasting benefits to the economy and the environment, as well as short-term economic stimulus.

The coalition's recommendations are for funding increases over and above existing program funding and would create more than 100 thousand jobs over the next two years, including construction and manufacturing and the industries that supply them.[v] The recommendations include:

- ***State and local government buildings*** -- $4 billion to Department of Energy (DOE) for grants for energy efficiency projects in state and local facilities. The potential for energy efficiency investments in the public sector is between $35 and $70 billion, and that fewer than 25 percent of all state buildings have had comprehensive energy-efficiency retrofits.[vi] This recommendation would create roughly 24 thousand jobs.

- ***Schools*** -- $3 billion to the Department of Education for grants for the repair, renovation, and modernization of public schools, with the requirement that a percentage of funding be used for improvements that make use of specified energy efficiency and green building standards. This recommendation would create roughly 18 thousand jobs.

- ***Federal buildings and facilities*** -- $1.2 billion to DOE to fund existing requirements (under EPACT 2005 and EISA 2007) to conduct facility audits, install advanced metering and make energy efficiency improvements in federal buildings. An additional $1.3 billion of economic activity could be induced by freeing up the existing backlog of energy services performance contracts held up at the DOE General Counsel – this would require no additional federal spending. Combined, these two recommendations would create roughly 15 thousand jobs.

- ***Weatherization Assistance*** -- $1.9 billion over two years to the Weatherization Assistance Program. These funds would be used to increase the number of homes reached by the program and provide training and investment necessary to meet President-Elect Obama's goal of one million homes weatherized annually. Initial spending would involve significant on-the-job training for unemployed carpenters and trades people to weatherize homes with at least tacit understanding that this is an employment opportunity for the future. With twelve training centers and hundreds of agencies already in place, the program can expand rapidly. This recommendation would create roughly 11 thousand jobs.

- ***Home energy retrofits*** -- $2.8 billion to EPA for state-administered programs intended to weatherize 1.5 million homes over two years. The programs would provide rebates or low-interest loans for homes that achieve at least 10%, 20%, or 30% energy savings through combinations of measures with assumed energy savings, Home Performance with Energy Star, or comprehensive retrofits based

on before and after energy audits. This recommendation would create roughly 22 thousand jobs based on federal funding alone.

- ***Public transit*** -- $2 billion to transit agencies to reduce fares and for expansion, rehabilitation and modernization of transit systems.

- ***Manufacturing Assistance*** -- $50 million to DOE Industrial Assessment Centers -- An existing network of universities provide free energy audits for local small and medium sized manufacturers. Students actually conduct the audits with supervision from professors, thus offering both training and energy savings opportunities.

- ***Building Code Support*** -- $100 million to DOE to support training of builders and state and local building code officials.

- ***ENERGY STAR*** -- $100 million to EPA to allow the ENERGY STAR program to expand state and local programs, including Home Performance with ENERGY STAR, label new categories of efficient products, and increase public outreach.

- ***Federal Appliance credit*** -- Make the federal tax credit manufacturers of high-efficiency appliances refundable for 2 years. This will require a minor legislative change and will drive investment and employment in manufacture of appliances at the highest efficiency levels by providing cash-strapped manufacturers with funds to invest in improved efficiency. The score should be minimal as it mostly enables this year tax credits that were already scored when extended in September (most of the credit is capped for each manufacturer). This provision will benefit consumers by increasing production and decreasing cost of very high efficiency refrigerators, dishwashers, and clothes washers.

Specific language is available for many of the recommendations.

Sustaining Momentum

At least a few tens of billions of dollars could be effectively absorbed over the next two years to expand energy efficiency programs that already exist or that could be initiated quickly with immediate energy savings and job creation. This would be a major increase in public sector spending, which currently totals about $5 billion, and would represent a major share of total private and public spending on efficiency.[vii]

The proposed stimulus package offers one source of funding to start the job – but additional action will be needed well beyond the next two years, both to sustain these programs and to create a price for carbon. The ability to use stimulus funds to address our energy and climate challenges is constrained by restrictions that they be spent within a very short window of time. Lack of consensus about best approach for fiscal stimulus argues for some diversity in the policy portfolio. A longer-term stimulus package

presented as part of a broad and credible strategic vision for the energy economy could build greater confidence in the country's overall economic prospects.

The Alliance to Save Energy appreciates the opportunity to testify and the Committee's and Chairman's interest in using the stimulus package to provide bridge funding to a clean energy economy. The recommendations we have provided will meet the objectives of fiscal stimulus and start us down the road toward a cleaner, more secure and less volatile energy economy.

---

[i] More than $8 trillion of stock valuation decline between Jan and October 2008 according to *Wall Street Journal* Oct. 11, 2008, p.1. Home prices in September had fallen by one-fifth from prior year to $162 thousand. See Standards & Poor's, "National Trend of Home Price Declines Continues Through the Third Quarter of 2008 According to the S&P/Case-Schiller Home Price Indices," Press release, November 25, 2008. There are roughly 75 million single-family homes in the US, thus 20% drop in value represents roughly 2.5 trillion in housing value.

[ii] The best approach to stimulating the economy is a point of contention among economists. Some argue that stimulus should be "timely, temporary and targeted." The notion is that the economy just needs a "shot in the arm," and that care should be taken to ensure the stimulus occurs when the economy is in a downturn and not after it has already rebounded. Other economists argue that stimulus should be "permanent, pervasive and predictable," that people spend based on their expected income over their lifetime and that the April 2008 stimulus had little or no effect on consumer spending. John B. Taylor, "The State of the Economy and Principles for Fiscal Stimulus, Testimony before the Committee on the Budget, United States Senate, November 19, 2008.

[iii] U.S. Chamber of Commerce, Blueprint for Securing America's Energy Future, Institute for 21st Century Energy, September 30, 2008, p.6.

[iv] McKinsey Global Institute, Wasted Energy: How the *U.S.* Can Reach Its *Energy Productivity Potential*, July 2007 <http://www.mckinsey.com/mgi/publications/wasted_energy/index.asp>

[v] A "job" equals one job for one year. For example, ten thousand jobs could equal ten thousand jobs for one year, five thousand jobs for two years, or two thousand jobs for five years. Job numbers in include direct and indirect jobs, but not induced jobs (i.e., the "multiplier effect"). Job calculations based on multipliers developed by Karen Ehrhardt-Martinez and John A. "Skip" Laitner, The Size of the U.S. Energy Efficiency Market: Generating a More Complete Picture," American Council for an Energy Efficient Economy, Report Number EO83, May 2008, p.9.

[vi] Personal correspondence, Don Gilligan, National Association of Energy Services Companies, December 2008.

[vii] Public sector spending for efficiency includes federal, state and local government spending as well as required spending by electric and gas utilities. Estimates based on data from the Consortium for Energy Efficiency (2008). The Alliance estimates total current spending for energy efficiency is about $40 billion: 2007 EE Quads was 1.35 higher than 2006 – 50.05Q vs 48.7Q. Assuming 10-year average life of EE measures and $40/million Btu cost of conserved energy (consistent with 4 cents/kwh), the spending for that 1.35Q annual energy saving equals $40b.