

The Opportunity that the Economic Stimulus Funding has to Improving the Energy Efficiency of Buildings

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Introduction

- The nation can not address its energy and environmental issues without improving the energy performance of buildings.
- According to the Energy Information Agency 70% of all electricity consumed in the U.S. is from buildings (36% from residential buildings).
- 39% of carbon emissions in the U.S. comes from buildings (21% from residential buildings).
- The International Energy Agency reported that improving the energy performance of buildings represents the most cost effective strategy for reducing carbon emissions.
- There are currently 107 million residential units in the U.S. The Brookings Institute reported that 75% of all buildings that will be used in 2050 have already been built.
- The building sector has been hardest hit by the current economic crisis. Improving the energy performance of buildings presents an opportunity for people who lost their jobs into the emerging green sector of the economy.

Opportunity

- There is currently a proven set of national standards, protocols and infrastructure for improving home energy performance through Residential Energy Services Network (RESNET) and the Building Performance Institute (BPI).
- This infrastructure needs to be expanded to meet the expected need to improve the energy performance of buildings.
- The economic stimulus funding can serve as a transition bridge for comprehensively improving the energy performance of homes.
- This represents a wise investment to meet the future demand that will be required by a national carbon cap and trade system.

Current Infrastructure

- RESNET has standards for a series of certification of individuals to inspect, test and rate the energy performance of homes:
 - Home Energy Survey Professional (entry level energy auditor)
 - Rating Field Inspector (persons to inspect and test homes and feeds data to certified rater)
 - Certified Home Energy Rater (conducts the modeling and analysis to rate the home's energy performance)

- BPI has standards for the inspection and installation of improvements for a home
 - Building Performance Analysis (testing, inspection and preparing work order for contractor)
 - Accredited Contractor

- BPI and RESNET is in the process of adopting a joint Comprehensive Home Energy Auditor Standard to create a Comprehensive Home Energy Auditor who can both serve as a Home Energy Rater and Building Analysis.

How All of This Can Come Together

- All of these pieces can be put together and expanded to develop a comprehensive approach to improving the energy performance of homes and create new green jobs.

- A model of such an approach is attached (Home Energy Performance Coupon)