



Rebuild and Renew:

The Impact on Job Creation in the Building Industry of the Energy Efficiency in Housing Act

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Summary

Energy legislation currently before Congress presents an opportunity to invest in the sustainability of buildings, which according to the U.S. Department of Energy, accounts for nearly 70 percent of U.S. electricity consumption.¹ They also create jobs for a wide range of professions, from architects and engineers to construction managers, contractors, carpenters, HVAC specialists, and others.

This analysis explores the job creation potential of the Energy Efficiency in Housing Act (EEHA) of 2009 (S. 1379). Although precise numbers for job creation are imprecise due to the challenges in determining actual funding levels and their impact on employment in the real world, using existing studies and data, this study concludes that EEHA could create or save as many as 84,500 jobs in the building design and construction industry per year.

Introduction

On June 25, 2009, Sen. Sheldon Whitehouse (D-RI) introduced S. 1379, the Energy Efficiency in Housing Act (EEHA).²

EEHA includes numerous provisions that would provide incentives and programmatic changes at the Department of Housing and Urban Development (HUD) that would make the nation's housing stock more energy efficient. These provisions not only will contribute to a reduction in greenhouse gas emissions caused by the built environment; they also will create or preserve thousands of jobs in the building design and construction industry.

The American Institute of Architects' plan for economic recovery (www.aia.org/rebuildandrenew) calls for investments in infrastructure that create greener buildings, vibrant communities, and a 21st century transportation network

¹ http://buildingsdatabook.eren.doe.gov/docs/xls_pdf/1.1.9.pdf

² Companion legislation, the Green Resources for Energy Efficient Neighborhoods (GREEN) Act (H.R. 2336), was introduced in the House by Reps. Ed Perlmutter (D-CO) and Judy Biggert (R-IL), also in 2009.

that is good for both the environment and economy. The AIA believes that investing in such projects will create both jobs and reduce energy consumption from the built environment.

This study analyzes the potential impact of job creation in the building design and construction sectors from EEHA.

Analyzing the Data

In order to measure the potential job creation impact of EEHA on the building design and construction sector, it is necessary to first analyze the amount of funding that could potentially be invested in energy efficiency and renewable energy retrofits via the legislation; and then calculate the potential number of jobs that would be created or preserved from this investment.

There are certain limitations to this approach. First, actual funding amounts are dependent on the annual appropriations process, and it is often the case that appropriations do not match the authorized amount.

Second, there is no clear consensus on how investments in building projects, particularly retrofits, create jobs. This study bases its estimates on a 2009 study by the Center for American Progress and the Political Economy Research Institute³ that found that every \$1 million spent on retrofits creates 16.7 direct, indirect, and induced jobs.

Building-Related Funding in EEHA

Several provisions within EEHA authorize funding for the design, construction, and/or retrofit of buildings, including:

- *Energy Efficiency and Conservation Demonstration Program (Sec. 7)*. Sec. 7 establishes an energy efficiency and conservation demonstration program for multifamily housing projects assisted with project-based rental assistance.
- *Alternative Energy Sources State Loan Fund (Sec. 19)*. Sec. 19 authorizes HUD to provide loans to States and Indian tribes to provide incentives to owners of single-family and multifamily housing, commercial properties, and public buildings to provide renewable-energy sources, energy-efficiency and energy-conserving improvements, and features for such structures, or infrastructure related to the delivery of electricity and hot water for structures lacking such amenities.
- *Sustainable Low-Income Community Grant Program (Sec. 20)*. Sec. 20 authorizes the Secretary of HUD to make grants to nonprofit organizations to use for a number of activities, including training,

³ http://www.americanprogress.org/issues/2009/06/pdf/peri_report.pdf

supporting, and providing financing to eligible community development organizations and qualified youth service and conservation corps in improving energy efficiency.

EEHA Act Authorization Levels

Section	Provision	Annual Authorization
7	Multi-Family Residential Demonstration Program	\$50,000,000
19	Alternative Energy Sources State Loan Fund	\$5,000,000,000
20	Sustainable Low-Income Community Grant Program	Such sums as may be necessary

Potential Job Creation in the Building Industry

Based on the figures above, it is possible to establish a potential range of job creation from EEHA.

As stated earlier, this study uses figures from *The Economic Benefits of Investing in Clean Energy*, a 2009 study by the Center for American Progress and the Department of Economics and Political Economy Research Institute at the University of Massachusetts, Amherst. This study found that every \$1 million spent on building retrofits creates 16.7 direct, indirect and induced jobs.⁴

Based on the above job creation figures and allowable uses for EEHA authorizations, it is possible to develop an estimate of potential job creation in the building industries based on these EEHA provisions.

EEHA Potential Job Creation

Provision	Jobs From Retrofits ⁴
Multi-Family Residential Demonstration Program	835
Sustainable Low-Income Community Grant Program ⁵	167
Alternative Energy Sources State Loan Fund	83,500
Total	84,502

Conclusion

Although it is difficult to precisely predict job creation that will arise from legislation such as EEHA, based on existing research and data, it is clear that the major building-related, energy-efficiency provisions in the bill will have a significant impact on job creation and retention in the design and construction industries.

⁴ http://www.americanprogress.org/issues/2009/06/pdf/peri_report.pdf

⁵ Based on authorization level in H.R. 2336

The large job creation potential per dollar invested in energy-efficient building design, construction, and renovations – combined with the sizable potential for energy savings from building efficiency measures – suggests that passage of energy legislation like EEHA will help policymakers achieve the twin goals of sustainability and economic development.

For more information, contact the AIA Federal Relations Team at 202-626-7438 or govaffs@aia.org.