

GOODMAN RESEARCH GROUP, INC.
Program Evaluation • Consultation • Market Research

*Renew Boston Residential
Energy Efficiency
Program*
Executive Summary

PREPARED BY

Pamela Stazesky, Ph.D.
Markeisha Grant, B.A.
Colleen F. Manning, M.A.

SUBMITTED TO

Amy Vavak, Associate Director
Mass Energy Consumers Alliance

October 2012

EXECUTIVE SUMMARY

The Renew Boston Residential Energy Efficiency Program was launched in 2010 through Mayor Thomas Menino's office, as a partnership between NSTAR, National Grid, Mass Energy Consumers Alliance, and Next Step Living, with the goal of reducing energy usage city-wide while creating energy efficiency services and jobs. This program, partially funded by the City of Boston's Energy Efficiency and Conservation Block Grant (EECBG), funded by the American Recovery and Reinvestment Act (ARRA), and administered by the Department of Energy, offered middle-income Boston residents (60-120% of state median income) up to \$3,500 in no-cost energy efficiency upgrades.

In May 2012, Mass Energy Consumers Alliance contracted with Goodman Research Group, Inc. (GRG) to conduct an evaluation of specific components of the Renew Boston program. The overarching evaluation goal was to assess the effectiveness, within the target population in Boston, of the strategies used to overcome barriers to implementing home energy efficiency upgrades.

METHODS

GRG's evaluation design included a multi-method approach comprised of three phases, each building on the previous one. First, summarizing analyses of data from the Home Energy Assessments conducted from July 2010 to April 2012 (n=8,415) was completed. To gain a deeper understanding of the results from these analyses, GRG collected data through an online survey from a random sample of Boston residents who had already received a Home Energy Assessment, some of whom moved forward with the recommended weatherization services, about their experiences with increasing the energy efficiency of their home through the Renew Boston program (n=338). The sample selected was stratified to help ensure it was representative of all Boston neighborhoods. Finally, phone interviews were conducted with a random sample of Boston residents living in two- to four-unit structures, who had not implemented all of the recommendations in their Home Energy Assessment, to better understand the obstacles and barriers this cohort of Boston residents face in making their home more energy efficient and to hear their stories in their own words (n=29).

Before commencing analyses of the existing data provided for this study, the amount of missing data was examined. Some missing data are expected in any study. However, large amounts can distort the results of statistical analyses, jeopardizing the validity of the conclusions drawn. The extent of missing data¹ on two key variables, out-of-pocket costs and implementation rates, exceeded fifty percent and thus would likely have significant impacts on the generalizability of this study.

¹ Missing data in this case are data values that were available in paper copy, but were unavailable in electronic format at the time of this study.

KEY FINDINGS

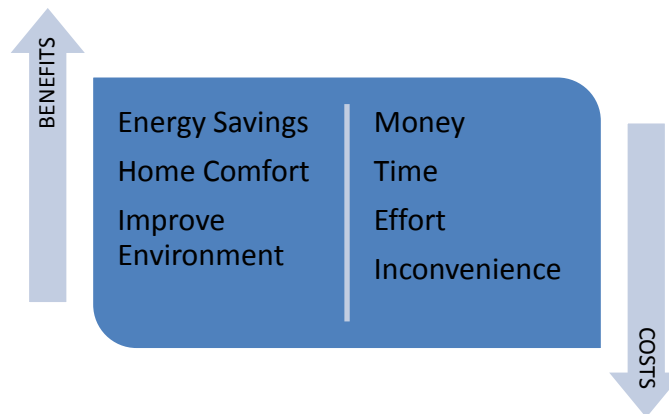
Assessment Experiences were Positive for Many; Varied Greatly Across Some Households

Residents' experiences with the Home Energy Assessment as well as with installation services varied greatly among households. Professional, courteous, competent Energy Specialists and installation contractors are essential to creating a positive experience for Boston residents. Residents will accept some mistakes or mediocre service, but are much more intolerant of poor communication and lack of follow-up.

Benefits Must Outweigh Costs

Residents are likely to implement recommendations if they believe the costs are affordable and perceive that the benefits, such as lower energy bills and improved comfortable living spaces, outweigh the costs. These costs include not only financial ones, but also time, effort, and inconvenience. While there are numerous reasons residents defer implementing recommendations, for most, the costs in terms of financial outlay trumps other obstacles. Thus, rebates were a powerful incentive. Survey results indicate that over two-thirds of residents would not have moved forward with the recommendations if the rebates had not been available. Yet, for some, the rebates were not big enough. Over 80% of residents who did not implement all of the recommendations would have done so if the rebates had been better. Contrasted with rebates, interest-free loans had no impact on implementation rates for many households.

Logic Underlying Balance of Cost and Benefits



Homeowners in Single-Family Homes Implement at Higher Rates

Homeowners living in single family homes implement recommendations at substantially greater rates, and face fewer obstacles, than do those living in multi-unit structures, including condominiums. The stacked nature of these homes creates a

domino effect in which a delay in implementation in one unit in a structure precludes implementation in other units. Reaching agreement on a path forward for the entire structure quickly becomes challenging as the number of units increases. Condominiums associations and rental management companies also become an additional layer in the decision-making process.

Landlords Slightly Less Likely to Implement Recommendations

Because most tenants live in multi-unit structures, they experience these same challenges. In addition, they must deal with their landlords, who, as the ultimate decision-makers regarding upgrades to the structure, may either put up additional roadblocks or pave the path for improved home energy efficiency. Recommendations are implemented in rental units at slightly lower rates, even after controlling for the number of units in the structure.

Pre-Weatherization Creates Additional Hurdles

Pre-weatherization recommendations, such as asbestos removal and knob and tube wiring, created additional hurdles for some residents. When no pre-weatherization work is required, residents are more likely to fully implement insulation or air sealing. Boston residents do seem interested in making their homes more energy efficient, but for some households, pre-weatherization out-of-pocket costs were too big of a hurdle to jump and thus thwart installation upgrades.

Personal Contact Results in Higher Implementation Rates

Personal contact, such as community outreach and door knocking, results in higher implementation rates. Trust in the personal contact is a related factor that influences implementation rates. Residents are much more skeptical of utility companies when it comes to learning about home energy efficiency. This might help explain why the bill insert outreach method does not yield implementation rates as high as those of some other methods.

On the Road to Success

We commend Renew Boston, the City of Boston, and Next Step Living for the positive steps they have already taken to make Boston a more energy-efficient city. In addition, we would like to acknowledge that Renew Boston may already be on the path to implementing some of the recommendations posed later in the full report.

Goodman Research Group, Inc.

929 Massachusetts Avenue, Suite 2A
Cambridge, Massachusetts 02139

Tel: (617) 491-7033
Fax: (617) 864-2399

info@rginc.com
www.rginc.com

© 2012 Goodman Research Group, Inc.