



Executive Summary

Policy makers and program designers in the U.S. and abroad are deeply concerned with the question of how to scale up energy efficiency to a level that is commensurate both to the scale of the energy and climate challenges we face, and to the potential for energy savings that has been touted for decades. When policy makers ask what energy efficiency can do, the answers usually revolve around the technical and economic potential of energy efficiency – they rarely hone in on the element of energy demand that matters most for changing energy usage in existing homes: the consumer. A growing literature is concerned with the behavioral underpinnings of energy consumption. We examine a narrower, related subject: How can millions of Americans be persuaded to divert valued time and resources into upgrading their homes to eliminate energy waste, avoid high utility bills, and spur the economy?

With hundreds of millions of public dollars¹ flowing into incentives, workforce training, and other initiatives to support comprehensive home energy improvements², it makes sense to review the history of these programs and begin gleaning best practices for encouraging comprehensive home energy improvements. Looking across 30 years of energy efficiency programs that targeted the residential market, many of the same issues that confronted past program administrators are relevant today: How do we cost-effectively motivate customers to take action? Who can we partner with to increase program participation? How do we get residential efficiency programs to scale?

While there is no proven formula – and only limited success to date with reliably motivating large numbers of Americans to invest in **comprehensive** home energy improvements, especially if they are being asked to pay for a majority of the improvement costs – there is a rich and varied history of experiences that new programs can draw upon. Our primary audiences are policy makers and program designers – especially those that are relatively new to the field, such as the over 2,000 towns, cities, states, and regions who are recipients of American Reinvestment and Recovery Act funds for clean energy programs. This report synthesizes lessons from first generation programs, highlights emerging best practices, and suggests methods and approaches to use in designing, implementing, and evaluating these programs. We examined 14 residential energy efficiency programs, conducted an extensive literature review, interviewed industry experts, and surveyed residential contractors to draw out these lessons.

¹ Public funds supporting home energy improvements include those provided by the American Recovery and Reinvestment Act, ratepayer funds collected in many states to support energy efficiency, and general program funds provided by federal agencies such as the Department of Energy and the Environmental Protection Agency, and local and state entities such as State Energy Offices.

² These improvements are known by many names, including residential energy efficiency retrofits or home performance retrofits. We use the terms “home energy improvements” or “home energy upgrade” throughout this report because we believe it is less confusing and has more positive connotations for homeowners new to this topic than other names used. We also use the term “energy assessment” instead of “energy audit”.



Marketing and Outreach Lessons

- **It is not enough to provide information, programs must *sell something people want*** – High home energy use is not currently a pressing issue for many people; find a more appealing draw such as health, comfort, energy security, competition, or community engagement to attract interest.
- **Time spent *studying the target population is important*** – A blanket marketing campaign to reach “everyone” will likely be ineffective and expensive, especially at the start of a program. Find and target early adopters. Tailor messages to this audience. Demographics can help segment the market and select optimal strategies, but you can also segment the market by personal values, interest in hot issues such as health concerns, or likelihood of getting savings.
- **Partner with *trusted messengers*** – Larger subsidies and more voluminous mailings don’t necessarily win over more customers. Programs can and should have a local face, with buy in from community leaders. Tapping trusted parties, such as local leaders and local organizations, builds upon existing relationships and networks.
- **Language is powerful** – Avoid meaningless or negatively-associated words like “retrofit” and “audit”. Use words and ways of communicating that tap into customers’ existing mental frames. Encourage program staff and contractors to use specific vivid examples, personalize the material wherever possible, frame statements in terms of loss rather than gain, and induce a public commitment from the homeowners.
- **Contractors are program *ambassadors*** – Contractors, more than any other party, are the people sitting across the kitchen counter making the final sales pitch to a homeowner – contractors are often the public face and primary sale force for the program. Most programs that succeed in performing a significant number of energy upgrades have worked closely with contractors. Conversely, poor first impressions or shoddy work by contractors can reflect poorly on the program.
- **One touch is not enough** – The advertising industry’s “three-times convincer” concept means that the majority of people need to be exposed to a product message **at least** three times before they buy into it. Energy efficiency is an especially tough product – it can be expensive and can’t be readily touched, tasted, or seen – and that calls for a layered marketing and outreach approach that achieves multiple touches on potential participants.



Program Design and Implementation Lessons

- **Make it easy, make it fast** - Offer seamless, streamlined services – package incentives, minimize paperwork, and pre-approve contractors – give people fewer reasons to decide against home improvements by making it simple.
- **Contractors should be full partners** – Contractors are the key point of sale for home energy improvements. They already understand the traditional renovation and home improvement market, and have access to customers who may initially want to replace a furnace but may be open to other improvements. It's imperative to design a program that contractors want to sell – and convince them that the opportunity is worth the time and money to get the appropriate training and equipment.
- **Rebates, financing and other incentives do matter** – Program experience shows that incentives do motivate the choice to do home upgrades, and can be extremely important to get a program off the ground.
- **A well-qualified workforce and trustworthy work are vital** – Promoting a program aggressively before contractors can handle the workload can lead to disgruntled customers. Solid performance builds trust with customers by reliably producing energy savings, as well as the health, safety, and comfort benefits of home energy improvements.
- **Persistence and consistency are valuable** – It takes time for partnerships to take root, for word to reach consumers, and for contractors to respond to the opportunity. Consistent programs that last for more than a year or two can create a more robust market for home energy improvements; ephemeral programs can undermine trust.
- **Know success and failure by measuring it, and experiment to figure out what works** – Designing for data collection and evaluation at the start allows mid-stream adjustments, better selection among strategies, and knowing success when it arrives. It is important to pilot strategies before launching full-scale programs and to test a variety of strategies to learn what works.

In retrospect, many of these lessons seem obvious: Forge strong local partnerships. Find out what people care about. Speak their language. Sell something people want. Be trustworthy. But our case studies, interviews, and literature review also reflect an increasingly nuanced evolution in understanding how behavioral and marketing insights can be applied to reduce energy use in the residential market. Success will require multifaceted approaches that acknowledge a deeper understanding of what motivates homeowners and contractors. Effective programs will tend to be tailored to the location, thoughtfully researched and piloted, personalized to the target audience, and more labor-intensive than simple incentive programs. Just as there is no single, monolithic customer, there is no silver bullet for driving demand for home energy improvements – but past experience and research offer policy makers and program designers a strong foundation on which to build.