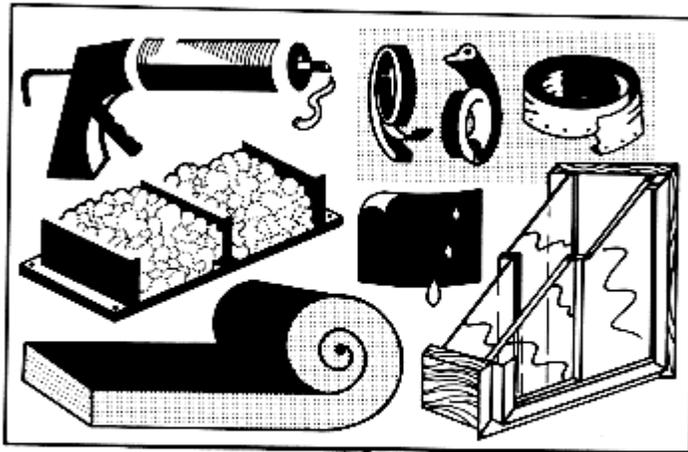


Energy Conservation and Housing Rehabilitation Under the HOME Program



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HOME Model Series

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Introduction

ENERGY CONSERVATION AND HOUSING REHABILITATION PROGRAMS

Energy conservation and the efficient use of energy are critical components of an affordable housing program. After rent or mortgage payments, energy bills comprise the highest portion of a household's housing expense—typically more than one-third of the housing budget for a low-income family. Although energy-efficient measures have reduced residential energy use overall, units occupied by lower-income families are still less likely to have weatherstripping, insulation, energy-efficient windows, or properly maintained heating systems than those occupied by higher-income families. State and local governments seeking to assist low-income homeowners and renters should develop programs to improve the energy efficiency of lower-income housing and reduce the high costs caused by energy waste.

The HOME Investment Partnership Program is a resource that can be used to address both housing rehabilitation and energy conservation. It was created by the National Affordable Housing Act of 1990 to provide funds to State and local governments for investment in long-term affordable housing. Section 257 of the Act specifically calls for a model approach that State and local governments—also known as participating jurisdictions (PJs)—can employ when using HOME funds to finance energy-efficient housing rehabilitation programs. Although energy conservation activities are sometimes undertaken separate from housing rehabilitation, HOME funds can be used to ensure that PJs produce both standard and energy-efficient units.

HOUSING REHABILITATION AND ENERGY CONSERVATION: DIFFERENT APPROACHES

Housing rehabilitation and energy conservation are often conducted by different parts of State and local government. Housing rehabilitation programs are generally funded by Community

Development Block Grants (CDBGs) at the local government level, while energy conservation and weatherization programs are usually funded through grants from the U.S. Department of Energy's (DOE) Weatherization Assistance Program (WAP) or the U.S. Department of Health and Human Services' (HHS) Low-Income Home Energy Assistance Program (LIHEAP). States provide funds for nonprofit or local government agencies to carry out WAP and LIHEAP activities, but these agencies might not also be CDBG recipients.

With separate funding and different program requirements, two separate industries for energy-conservation and rehabilitation have developed. Some of the major differences are summarized in Figure 1.

If housing rehabilitation and energy conservation are distinct programs, are there reasons why a PJ should develop an integrated program? Yes! Energy efficiency and conservation make sense for all households, but they are especially important for low-income households. The poor condition of many low-income homes leads to high energy costs and energy waste:

- Low-income housing is often in poor structural condition, with uninsulated floors, doors, walls and attics, decayed electrical wiring, leaky and inefficient plumbing and fixtures, roof defects, and old, poorly-maintained (or even non-functioning) heating systems. Residents and owners of these units rarely have the resources to make any but the most inefficient modifications to their homes in an effort to conserve energy (heating and cooling).
- Residents of low-income households often cannot pay their utility bills, or have to choose between paying the bills and paying the mortgage or rent (or even buying food).
- In other cases, households may improvise using hazardous methods, such as unventilated kerosene stoves, space heaters, or

Figure 1. Housing Rehabilitation Programs Versus Energy Conservation Programs

	Housing Rehabilitation	Energy Conservation
Target population	Homeowners and renters	Homeowners and renters
Income eligibility	Based on median income	Based on Federal poverty level
Area of operation	Often city-based	Throughout State
Volume	Varies	High
Expertise	Structural; often lack energy expertise	Weatherization; often lack whole-house rehabilitation expertise
Staffing	Primarily administrative; property owners hire private contractors to perform work	Administrative; may also have in-house work crews who perform audits and install materials (contractors sometimes used in conjunction with in-house crews)
Scope of work	Broad; work required to bring structure up to minimum standards and/or local codes. Concerned primarily with health, safety, and livability conditions	Focus on weatherization and energy conservation improvements. Emphasis placed on cost-effectiveness and the energy efficiency of improvements
Job costs	Low- or high-cost jobs (\$5,000 to \$25,000)	Generally low-cost jobs (<\$2,000)
Financing	Generally low-interest loans; some deferred payment loans, grants, or interest write-downs	Grants

kitchen ovens as heaters to save on utility bills. These methods are often inefficient and unsafe and may lead to fires, property damage, injury, and even death.

By including energy efficiency as a rehabilitation standard, PJs can help their most vulnerable households while simultaneously extending the life of local housing stock.

ADVANTAGES OF COLLABORATION

When PJs and energy conservation agencies combine their funds and technical expertise for energy-efficient rehabilitation, both have access to new resources. In particular, from the housing program's perspective, collaboration with energy conservation programs gives the PJ access to:

- **Technical expertise.** Energy conservation agencies have state-of-the-art knowledge about in-home energy conservation principles and applications;
- **Practical experience.** The program staff will know which techniques are effective—based on a home-specific energy audit—and can prepare appropriate work writeups, inspect job sites, and evaluate energy-related subcontractors;
- **Appropriate equipment and techniques.** Energy programs can perform energy audits and install energy-saving measures with specialized tools and materials, such as furnace testers, blower doors, insulation blowing machines, etc., that most PJs do not have; and

- **New sources of leverage.** Many energy programs have created financial linkages that PJs may be able to use to satisfy their matching and leveraging requirements.

All these advantages mean that PJs can rise up the energy conservation learning curve quickly, improve the quality of low-income housing, and efficiently reduce energy costs for low-income households.

For the energy conservation program, collaboration with the housing rehabilitation program provides:

- **Additional funding.** Energy programs—especially those constrained by WAP funding limits—can use HOME funds to pay for housing rehabilitation activities that they could not perform otherwise, and thus extend the effectiveness of energy-related retrofits;
- **Expanded capability.** Energy programs often are prevented from performing efficient energy-related work because the units need repair work that the programs cannot perform; and
- **Additional staff.** Just as the PJ can benefit from the energy program staff's knowledge, the energy programs can rely on PJ staff to help market the program, screen applicants, and manage construction.

The increased resources mean that energy programs can promote higher levels of energy conservation and help ensure that more low-income households will be able to pay their bills. The result of collaboration for both programs is an increase in decent *and* energy-efficient housing for low-income people.

PURPOSE OF THIS MODEL

This model discusses the differences in housing rehabilitation and energy conservation programs, and how the two can be brought together, using HOME funds and other resources, to provide housing that is both affordable and energy-efficient. It provides a general overview of

energy-efficiency measures and techniques for PJs and nonprofits that do not operate their own conservation or weatherization programs. (Readers who need more precise information on energy-efficiency measures should refer to Appendix D for additional information sources.)

- Chapter One explains the HOME Program—the rules for using HOME funds, and the housing and energy standards that HOME-funded projects must meet. It also introduces two other Federal programs aimed directly at energy use and weatherization—DOE's WAP and HHS's LIHEAP—and explains how they can be used in conjunction with HOME.
- Chapter Two explores the areas in which housing rehabilitation and energy conservation measures overlap. Although not a technical guide, this model introduces some of the structural and mechanical aspects of energy conservation, and shows how these aspects can be incorporated into a housing rehabilitation workplan.
- Chapter Three offers three organizational models for combining housing rehabilitation and energy conservation programs: one in which the PJ's housing rehabilitation agency takes the lead and uses energy conservation staff as a resource; one in which the PJ's housing rehabilitation agency again takes the lead, but the energy conservation agency contributes funding to the project; and one in which the energy conservation staff expands its capacity to provide housing repair services to its clients. The chapter explains both the structure of the models themselves, and the process by which a PJ can decide which is most appropriate.
- Chapter Four examines a number of joint and individual ventures by State and local governments, public utility companies, and nonprofit providers to offer energy-efficiency and conservation services. PJs may find this information especially helpful as they consider ways of linking their resources to those of the private and nonprofit sectors.