

Chapter One

FEDERAL RESOURCES FOR HOUSING-ENERGY COLLABORATION

ENERGY CONSERVATION AND HOME

Participating jurisdictions (PJs) commonly use the HOME Program for housing rehabilitation. Because HOME Program rules give PJs broad discretion in what they can fund, PJs can incorporate energy conservation into their rehabilitation plans. The U.S. Department of Housing and Urban Development (HUD) has allocated 40 percent of HOME funds to State governments. Thus, State HOME recipients can directly coordinate the delivery of these funds with the U.S. Department of Energy's (DOE) Weatherization Assistance Program (WAP) and the U.S. Department of Health and Human Services' (HHS) Low-Income Home Energy Assistance Program (LIHEAP) funds. In addition, because HOME funds can be combined with many other funding sources, State and local PJs can use their HOME funds to induce coordination between their housing program and the local energy program. Before PJs consider any collaborations, however, HOME rules must be understood to ensure that there is a good fit between activities eligible for HOME and other energy funds.

Income Eligibility and Targeting

Rehabilitation projects funded with HOME must benefit low-income homeowners and renters. HUD defines "low income" as income that does not exceed 80 percent of the median household income for the area, adjusted for size of family. In addition, PJs that invest in rental housing or tenant-based rental assistance must spend at least 90 percent of these funds to benefit households with incomes at or below 60 percent of the median income. HOME funds spent on weatherization and energy conservation must contribute to achieving these targets.

Eligible Properties

Properties that are eligible for HOME funds include single-family homes, multifamily units, mobile and manufactured homes, and condominium and cooperative units. Ineligible properties include federally assisted public housing authority (PHA)-owned units, units receiving assistance under 24 CFR Part 248, Prepayment of Low Income Housing Mortgages, and units that have been previously assisted with HOME funds during the period of affordability.¹

The units must also be affordable after the HOME investment. According to HOME guidelines, an affordable *owner-occupied unit* is one where the home has an estimated appraised value, after the HOME investment, that does not exceed 95 percent of the median purchase price for the type of residence (single-family, condominium, etc.) for the jurisdiction, as determined by HUD. This information is available from the local HUD Field Office. An affordable *rental unit* is one where the rent meets the following criteria:

Units in Project	Allowable Annual Rent (including utilities)
Less than 3	High HOME rents—The lesser of: the area Fair Market Rent (FMR) or 30% of the adjusted income of a family whose gross income equals 65% of the area median income as defined by HUD.
3 or more	Up to 80% of the units may have High HOME rents as described above and at least 20% of the units must be occupied by a very low-income family paying Low HOME rents. I.e., rent payments do not exceed 30% of the gross income of a family whose income equals 60% of the area median income as defined by HUD, or 30% of their actual income. ²

In addition, rental units (but not owner-occupied units) must remain affordable for a specific period of time, depending on the amount of HOME funds the PJ invests in the unit, as follows:

PJ Investment	Period of Affordable Rents ³
Up to \$15,000/unit	5 years
\$15,000-\$40,000/unit	10 years
Over \$40,000/unit	15 years

Thus, if a PJ decides to rehabilitate and/or weatherize rental housing with HOME funds, it must be prepared to monitor compliance with the affordability requirement for 5 to 15 years.

Concordance with the CHAS

PJs must invest HOME funds to address one or more of the priorities identified in their Comprehensive Housing Affordability Strategy (CHAS). If, for example, the CHAS indicates that the homes of low-income elderly households are especially in need of home rehabilitation and weatherization, the PJ can target assistance to those households. If, however, the PJ finds that the majority of multifamily rental properties need energy-conserving modifications and general rehabilitation, it could design a program to serve multifamily properties and their tenants. The PJ's guidelines simply need to follow HOME rules and be designed and applied fairly to the target population.

HOME Investment Limits

PJs using HOME funds must invest a minimum of \$1,000 of those funds in every assisted unit. This \$1,000 can include rehabilitation alone, weatherization alone, or a combination of any HOME-eligible costs. The maximum per-unit investment of HOME funds cannot, however, exceed 100 percent of the mortgage limits established under Section 221(d)(3) of the National Housing Act, as defined by HUD.⁴ Again, HUD can provide charts that detail these limits.

Eligible Costs

Under the HOME program, PJs can fund three categories of costs—project “hard” costs, project “soft” costs, and administrative costs. Hard costs include property improvements, utility connections, materials, labor, and contractor costs directly related to rehabilitation and energy improvements. A PJ may also use up to 10 percent of its HOME allocation to pay for administrative and planning costs for the HOME Program. Administrative costs include general management, oversight, and coordination; staff and overhead; public information; fair housing; indirect costs; and submission of the housing strategy. PJs can charge project-related or relocation-related staff and overhead costs and certain fair-housing costs either as administrative or project-related soft costs, however, all other costs must be charged under their specified category. Project-related soft costs are not applied against the 10 percent maximum administrative cap; rather they are counted against the maximum per-unit subsidy as required under the HOME program.

Other project soft costs, i.e., “reasonable and customary” costs related to the development or financing of HOME-assisted housing, may also be charged to the HOME Program. Typical project-related soft costs include architectural and engineering services; costs to process and settle financing for a project; costs for a project audit; costs for the payment of impact fees; and, in the case of new construction or substantial rehabilitation, the cost of funding an initial operating deficit reserve for up to 18 months. Relocation payments are always considered a project soft cost; relocation advisory services, depending on the specifics, however, may be considered an administrative or project soft cost.

Contact your area HUD office for further information on administrative and soft costs under the HOME program.

Use of Subrecipients and Contractors

PJs can contract with nonprofit subrecipients to administer part or all of their HOME-funded programs, or they can competitively bid for general construction contractors, subcontractors,

and service professionals to perform work on HOME-funded projects and pay for their services with HOME funds. Subrecipients and contractors who use HOME funds must comply with HOME regulations.

These provisions mean that PJs without energy conservation expertise can contract with energy conservation programs to work on HOME-funded housing rehabilitation projects, but they must be able to monitor and enforce standards for their subrecipients' and contractors' performance. Refer to *Owner-Occupied Housing Rehabilitation and From Rental Rehabilitation to the HOME Program* for further details on HOME Program requirements.

Construction Standards

Although HOME can be combined with other program funding, HOME construction requirements, which are very specific, must always be complied with. Upon project completion, units assisted with HOME funds must meet the PJ's housing rehabilitation standards, which, at a minimum, must meet HUD's Section 8 Housing Quality Standards (HQS).⁵ HQS specify health and safety requirements, and also set mandatory standards for structural conditions, minimum space allowances, heating systems, lighting, ventilation, and fixtures. As a result of HQS, HOME funds cannot be used to address one housing need (such as the installation of a new furnace) in a substandard house unless the entire house is brought up to standard.

HOME also requires that units substantially rehabilitated with program funds—i.e., the total development cost of rehabilitation exceeds \$25,000 per unit—also meet Cost Effective Energy Conservation Standards (CEECS) (24 CFR Part 39). CEECS establish levels of energy-efficiency for various features included in residential property rehabilitation and require that they must be attained *if it is determined that it would be cost-effective to do so*.

CEECS include general, mandatory requirements for all buildings, as well as specific requirements for single-family buildings (one to four units) and multifamily buildings (five or more units). To satisfy the general requirements for rehabilitation, the housing rehabilitation agency must:

- Install adequate weatherstripping on doors and windows to reduce air infiltration;
- Properly seal all openings, cracks, or joints in the building envelope;
- Insulate heating, ventilation, and air conditioning unit pipes and ducts running through unconditioned spaces (R-2 or better and R-4 or better);
- Install "high-efficiency" heating systems, burners, and air conditioning systems whenever those systems are replaced, to be no more than 15 percent oversized (as is feasible—some degree of oversizing may be unavoidable); and
- Perform or obtain an energy audit for multifamily, mid-rise, and high-rise dwellings to identify and specify the energy and cost savings that are estimated to result from installing or accomplishing specified energy conservation measures. All measures identified as cost-effective must be accomplished.

Of course, many of these measures are already standard rehabilitation practices.

Beyond these general requirements, CEECS require certain energy-conserving improvements *when such improvements would be cost-effective for a particular building's rehabilitation*. For single-family buildings, this includes the installation of insulation in ceilings, walls, and floors (to a specified R-value, given the climate), and weatherizing or sealing windows and doors. For multifamily buildings, the improvements include:

- Installing individual utility meters or checkmeters;
- Putting in ceiling insulation;
- Installing clock thermostats for units with individual heating units;
- Installing storm windows or double-glazed windows;
- Putting flow restrictors on showerheads and hot-water faucets;
- Putting in thermostatic radiator valves;
- Replacing incandescent fixtures in public spaces with higher-efficiency lighting;
- Insulating water heaters located in unheated spaces and installing thermostats; and
- Improving burners and controls to increase the efficiency of mechanical systems and to lower fuel consumption.

What defines **cost-effective**? In general, a cost-effective improvement is one where the cost of the improvement is offset by the savings it generates for the client. (See Appendix A for further discussion of this point.) Costs and savings depend on local weather conditions, the cost of fuel, the initial cost of making the improvements, and the term and interest rate of the rehabilitation loan. For example, the CEECS recommendations for cost-effective R-values of insulation and storm window/door installation are based on the heating and cooling indices contained in the regulation. For multifamily buildings, there are additional cost-effectiveness variables, including the estimated first-year savings and annual maintenance costs—these variables can be evaluated by the energy audit.

There are standards for new construction as well. (In the HOME Program, if a unit is added onto an outside wall of an existing structure, the project is considered *new construction*.) Newly constructed single-family detached and multifamily units that have up to (and including) three stories above grade must meet HQS and the Council of American Building Officials' (CABO) 1992 Model Energy Code.⁶ The Model Energy Code, which is more extensive than CEECS, sets specifications for heating systems, insulation, ventilation and air infiltration, thermal transference, and other aspects of energy-related building design. The Code provides industry standards by which builders identify the energy specifications required, given the location's number of heating degree days, wall density, or other construction factors. A standard might be uniform despite the location of the building—for example, regarding Service Water Heating, § 504.2.2 reads:

Insulation: Heat loss from unfired hot-water storage tanks shall be limited to a maximum of 13.6 Btu/h/ft.² of external tank surface area. The design ambient temperature shall be no higher than 65 degrees F.

Building Envelope Requirements, however, depend on the annual Fahrenheit heating degree days, and determining the correct standard may require the assistance of an experienced weatherization provider or trained energy analyst.⁷ The Model Energy Code is available from the Council of American Building Officials, 5203 Leesburg Pike, Falls Church, Virginia 22041.

FEDERAL ENERGY CONSERVATION PROGRAMS

The two major Federal energy conservation programs for low-income residential housing are DOE's WAP and HHS's LIHEAP. Regulations for WAP are listed in 10 CFR Part 440; regulations for LIHEAP are listed in 45 CFR Part 96. How do these compare with the HOME Program?

Weatherization Assistance Program (WAP)

The Weatherization Assistance Program is a program whereby DOE makes grants to the States, which in turn provide subgrants to local agencies (either community action agencies or nonprofits) to weatherize the homes of low-income persons. Special emphasis is placed on low-income elderly and disabled persons, and, if a State elects, children. Services such as installing insulation, weatherstripping, caulking, furnace efficiency modifications, cooling measures, etc., are provided free of charge to eligible families. Grantees must select one or more subgrantees to operate the program.

WAP's eligibility rules are based on income and are more restrictive than those for HOME. To be eligible for the program, a family's income must be at or below 125 percent of the poverty level as determined by the federally established Poverty Income Guidelines, or the family must receive benefits under the Aid to Families with Dependent Children Program or receive Supplemental Security Income for the Aged, Blind, or Disabled. If the grantee proposes to weatherize multifamily rental housing, only 66 percent of those units must be occupied by eligible households (either at the time of weatherization or within 180 days under a Federal, State, or local government rehabilitation program).

Allowable expenditures under WAP include costs for weatherization materials; labor, transportation, and maintenance of vehicles and tools used to transport or install the weatherization materials; on-site supervision; insurance; and incidental repairs necessary to make the weatherization effective. These allowances are similar to those under HOME. Whereas HOME requires a mini-

mum investment of \$1,000 and has a generous ceiling, WAP enforces a statewide average spending limit of \$1,600 per unit⁸ for labor, materials, and related items, except when capital-intensive furnace or cooling modifications are required. Only those repairs needed to allow the weatherization work to be performed or to make it more effective are allowed.⁹

To compare the WAP income limit with the HOME limit, consider the following (1990 used as an example):

- HOME would take the 1990 national median household income for a four-person family, \$43,545, and calculate an income eligibility limit of 80 percent of this figure, or \$34,836.
- WAP would take the national poverty level for a four-person family in 1990, \$13,359, and calculate an income eligibility limit of 125 percent of this figure, or \$16,699. Thus, in 1990, the WAP income limit for assistance was nearly half of the HOME limit.

Note. Household income is adjusted for family size and for HOME is actually based on the area median income.

These limits do not necessarily prevent PJs from using WAP and HOME funds together. DOE's commentary on the Proposed Rules for WAP, published in the *Federal Register* on October 23, 1991, reads "Homes that need rehabilitation (extensive repairs), are not the most cost-effective sites for weatherization until after rehabilitation work has been completed. Such homes should be referred to other Federal or State programs that provide for rehabilitation." Thus, DOE intends WAP to work in tandem with a program like HOME. If a project is eligible under both programs, a PJ can use WAP funds to pay for energy conservation measures and pay for the remaining rehabilitation work with HOME funds.

Low-Income Home Energy Assistance Program (LIHEAP)

LIHEAP is an HHS program funded by a block grant and administered by the Division of Energy Assistance, Office of Community Services. LIHEAP offers energy-related assistance to low-income households. Unlike WAP, grantees may use only up to 15 percent of their funds for low-

cost residential weatherization and energy-related home repairs (or up to 25 percent, if the grantee receives a waiver from HHS); the majority of funding must be used to make energy-assistance payments for heating and cooling bills. Up to 10 percent may be used for planning and administration.

LIHEAP has more generous eligibility requirements than WAP: household income can be up to the higher of 150 percent of the poverty level, or 60 percent of the State median income level, and grantees may not set income eligibility standards below 110 percent of the poverty level.¹⁰ In addition, households in which one or more persons receive AFDC, Supplemental Security Income (SSI), Food Stamps, or need-tested veteran's benefits may be regarded as categorically eligible, at the grantee's option.

Like WAP, LIHEAP is a formula grant program. Payments may be made either to the household or to the participating energy assistance, weatherization, or home energy suppliers. Although LIHEAP does not specify weatherization standards and regulations, the rules allow grantees to use WAP rules provided that they are consistent with LIHEAP guidelines. Thus, both WAP- and LIHEAP-funded providers should be able to work within the HOME Program requirements on at least a portion of their projects. (See Figure 2 for a comparison of HOME, WAP, and LIHEAP.)

SUMMARY

Because of the wide range of activities that are eligible for funding under HOME, a PJ can use program funds to incorporate energy-efficiency measures into its own housing rehabilitation program, to support housing rehabilitation work done by energy conservation programs in the community, or to finance some combination of the two. Nonetheless, combining HOME funds with either WAP or LIHEAP presents challenges to the PJ, as will be discussed in Chapter Three. Because the programs' different eligibility requirements and work standards do not automatically lend themselves to combination, PJs must compare energy program rules and activities to find a good "fit" between HOME and an energy conservation program.

Figure 2: Comparison of HOME, WAP and LIHEAP

	HOME	WAP	LIHEAP
Basis of allocation	Formula to PJs. Local grantees receive funding directly, or may receive funding from State PJs on a competitive basis.	Formula. Grantee must submit application.	Formula. Grantee must submit application.
Grantees	State and local PJs. PJs may also apply to the State as State recipients.	State governments. Localities or agencies may apply directly if State does not apply.	State governments.
Use of subrecipients	Allowed.	Required.	Allowed. State may provide funds directly to households.
Households eligible	90% of funding used for rental housing must benefit families at 60% of median. The remaining 10% of funding may benefit families at or below 80% of the area median.	Below 125% of national poverty level (e.g., \$16,699 for a family of four).	Higher of: <ul style="list-style-type: none"> ■ Below 150% of national poverty level (e.g., \$20,038 for a family of four) or ■ Below 60% of State median income (varies by State) Households receiving AFDC, SSI, Food Stamps, or need-tested veteran's benefits may also be eligible.
Units eligible for assistance	Single- and multifamily. 100% of the assisted units must be for income-eligible households.	Single- and multifamily. In multifamily developments, 66% of assisted units must be for income-eligible households.	Residences of eligible households.
Allowable costs	<ul style="list-style-type: none"> ■ Rehabilitation labor and materials ■ Energy-efficient improvements ■ Program delivery 	<ul style="list-style-type: none"> ■ Weatherization labor and materials ■ Program delivery ■ Incidental repairs At least 40% of the allocation must be spent on materials.	<ul style="list-style-type: none"> ■ Heating and cooling assistance payments ■ Minor repairs No more than 15% of the allocation (25% with waiver) may be spent on low-cost repairs.
Size of jobs	Minimum HOME expenditure of \$1,000 per unit; generous maximums.	Repairs limited to those necessary for weatherization; \$1,600 per-unit limit.	Minor.
Construction standards	Section 8 Housing Quality Standards, plus CEECS/CABO Model Energy Code as applicable.	<ul style="list-style-type: none"> ■ Cost-effective per 10 CFR 440.21(b) ■ Allowable materials per 10 CFR 440.3 and Appendix A to Part 440 	Prevention of fraud, waste, and abuse required.
Administrative costs	Up to 10% of allocation.	Up to 10% of allocation.	Up to 10% of allocation.

This difficulty can be partly removed if the methods and requirements of housing rehabilitation and energy conservation programs are fully understood by agencies operating each program.

The following chapter provides a basic discussion of the energy-efficient measures and strategies that FJs should understand.