



U.S. Department of Housing and Urban Development Energy Efficiency Program Guide

The Energy Efficiency Program guide is intended to provide general information on HUD programs and initiatives supporting energy efficiency and conservation.

In any single year, HUD assists more than five million renters and homeowners—approximately 5 percent of all housing in the nation—through its various programs. The Department spends some \$4 billion each year on energy – more than 10 percent of its budget - primarily through utility allowances to renters, housing assistance payments to private building owners, and operating grants to public housing authorities.

HUD believes that energy efficiency initiatives could yield significant cost savings to the Federal government, to property owners, and to building residents. Reducing HUD’s energy bills by just five percent could yield a savings of \$2 billion over the next ten years – funds that could be used for additional operating expenditures in public housing, or additional vouchers for families.

The guide does not provide detailed information about program regulations and requirements. Interested parties may obtain additional information about particular program and initiative by using the hyperlinks to HUD websites provided throughout the document or by contacting your local HUD office.

HUD Energy Plan/Initiatives

[HUD Energy Plan](#)

HUD’s Energy Action Plan consists of 21 proposed activities that HUD can undertake to support the energy efficiency and conservation goals of the President’s National Energy Policy. The Energy Action Plan provide a framework for HUD’s program and field offices to develop and undertake initiatives for improving energy efficiency in HUD-assisted housing and HUD’s community and housing programs.



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Rental Assistance Programs

Section 8 – Rental Support Assistance Programs

HUD provides two primary rental support programs that provide utility allowance to low-income households. HUD's tenant-based Section 8 certificate and voucher programs serve an estimated 1.6 million households. HUD's project-based Section 8 rental assist program serves an additional 1.4 million households.

Rents for the Section 8 program are based on Fair-Market Rate (FMR) schedules published by HUD and the Payment Standards adopted by PHA's. Under these programs families generally pay 30% of their adjusted income towards rent. The Section 8 program makes up the difference between the tenants contribution and the contract rent. Under HUD guidelines, HUD interprets rent to include reasonable utility costs. A **utility allowance** set by the PHA is typically used to determine the portion of the contract rent that reflects the expected cost of reasonable utility consumption. In cases where the household pays a utility company directly, it receives a reduction in the rental payment in the amount of the utility allowance for the area. The estimated total utility costs for the Section 8 program is \$2.5 billion annually; roughly 16 % of the total annual budget authority for the section 8 program.

Public Housing Programs

Public Housing Operating Subsidies

HUD provides an annual subsidy to help public housing agencies (PHAs) pay some of the cost of operating and maintaining public housing units. HUD outlays for energy costs for 1.2 million public housing units were \$1.154 billion in 1999. Under [PIH Utility Policies](#), (**Part 965.302**) all PHAs must complete an energy audit for each PHA-owned project not less than once every five years. Energy audits must analyze all of the energy conservation measures, and the payback period for these measures, that are pertinent to the type of buildings and equipment operated by the PHA.

Additionally, under [PIH Utility Policies](#), (**Part 965.305**) the cost of accomplishing cost-effective energy conservation measures, including the cost of performing energy audits, shall be funded from operating funds of the PHA to the extent feasible. When sufficient operating funds are not available for this purpose, such costs are eligible for inclusion in a modernization program, for funding from any available development funds in the case of projects still in development, or for other available funds that HUD may designate to be used for energy conservation. Regulations (**Part 965.304**) also require PHA to install energy conservations measures in order of their relative cost effectiveness.



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Public Housing Utility Efficiency Initiatives (Energy Performance Contracting)

The **Housing and Community Development Act of 1987** (HCD Act of 1987) provided housing authorities a way to finance large-scale building renovation projects from the stream of savings generated by the installation of energy-efficiency retrofits. The incentives enable housing authorities to reduce both the amount of energy used in their buildings and the rate that is paid for that energy. Housing authorities, the federal budget and the residents of public housing can all benefit in the process.

Section 118(a) of the HCD Act of 1987 contained two new incentives to encourage PHAs/IHAs to implement energy conservation improvements that reduce utility consumption using nonfederal sources of funding and one incentive dealing with purchase arrangements that reduce the cost of energy consumed.

a. Consumption Reduction Incentives

Frozen-Base Initiative: Under this incentive, the three-year rolling base utility consumption is frozen at the level of consumption before installation of the energy improvement. The initiative permits PHA to retain 100% of the cost savings during the contract period. Retained cost savings from reduced utility consumption can be used to pay for the capital and related costs of energy improvements.

Additional Subsidy Initiative: Under this incentive, a PHA requests an additional subsidy as an "add-on" to its total operating subsidy eligibility. This additional subsidy would be applied to amortizing payments for a loan contracted to finance energy-conservation improvements with a repayment period not to exceed 12 years. PHAs could use conventional financing or other financing agreements with utilities or local government sources for repayment of the capital costs associated with this incentive.

b. Rate Reduction Incentive

Under this initiative PHAs share equally with HUD the first year's savings that stem from the use of an alternative purchasing arrangement that results in lower utility costs, such as purchasing natural gas directly from the "well-head" or administrative appeals or legal action taken by the PHA/IHA to reduce the rate it pays for utilities.

In addition, HCDA of 1987 provides for specific circumstances where housing authorities may borrow funds from non-HUD sources to finance conservation projects, which is otherwise prohibited by the Annual Contributions Contract.



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Public Housing Modernizations Programs: ([Comprehensive Grant Program](#) and [Comprehensive Improvement Assistance Program](#))

HUD's Comprehensive Grant Program (CGP) and Comprehensive Improvement Assistance Program (CIAP) provide funds to help PHAs correct physical and management deficiencies and keep units in the housing stock safe and desirable places to live. The CGP gives large PHAs discretion for planning specific improvements and facilitates long-term planning by providing funds annually on a formula basis. Under HUD's modernization programs PHAs may incorporate cost-effective energy conservation measures that are identified in the PHA's most recently updated energy audit.

[HOPE VI program](#)

HOPE VI provides grants and unprecedented regulatory flexibility to revitalize distressed public housing developments and social services for public housing residents. HOPE VI permits expenditures for the capital costs of demolition, construction, rehabilitation and other physical improvements, development of replacement housing, and community & supportive services.

Under HOPE VI PHAs are encouraged to seek new partnerships with private entities to create mixed-finance and mixed-income affordable housing that is radically different from traditional public housing "projects." The cost for design features and improvements promoting energy efficiency are eligible under the program. HUD encourages partnerships with DOE under the Rebuild America program to incorporate high performance energy improvements in HOPE VI projects.

[Public Housing Energy Conservation Clearinghouse](#)

HUD's Office of Public and Indian Housing maintains an energy resource clearinghouse with a wide variety of information on energy efficiency resources, research, and links.



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Community Development Program

Community Development Block Grant Program (CDBG)

The CDBG program provides over \$4.9 billion in funding to states and communities for a wide range of community development, housing and public services. In 1980, the U.S. Congress gave the CDBG Program a mandate to support energy efficiency and renewable energy technologies in property rehabilitation. Activities funded must be eligible and meet one of the three national objectives: (1) benefit to low- and moderate-income persons; (2) aid in the prevention or elimination of slums and blight, or (3) meet other community development needs having a particular urgency because existing conditions pose a serious and immediate threat to the health or welfare of the community.

Typical activities include construction of public facilities and improvements, such as water systems, streets, and community centers; rehabilitation of houses and landmark structures; and the provision of public services. Funds may be used for design features and improvements promoting energy efficiency, including new construction and rehabilitation. Activities may also include public energy conservation services, assistance to neighborhood-based organizations undertaking energy conservation projects, and the development of energy use strategies to achieve maximum energy efficiency.

HOME Investment Partnerships Program (HOME)

HOME is the largest Federal block grant to State and local governments designed exclusively to create affordable housing for low-income households. Each year approximately \$2 billion is allocated to States and hundreds of local Participating Jurisdictions (PJs) for a wide range of activities to develop, rehabilitate, or purchase affordable housing for rent or homeownership.

The HOME program provides flexibility to communities to design and implement strategies tailored to their own needs and priorities. HOME funds may be used to finance rehabilitation activities to meet local codes and, at the same time increase the efficient use of energy in structures through such means as installation of storm windows and doors, siding, wall and attic insulation, and conversion, modification, or replacement of heating and cooling equipment, including the use of solar energy equipment. Energy auditing and home energy rating are also an eligible use of HOME funds.

HUD encourages HOME PJs to incorporate ENERGY STAR qualified products and practices when conducting rehabilitation or constructing new housing. For substantial rehabilitation and new construction projects PJ's are encouraged to specify ENERGY STAR Qualified Products and adopt ENERGY STAR standards for building performance. For moderate rehabilitation or repair projects, PJ's can



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incorporate ENERGY STAR by: specifying ENERGY STAR Qualified Products; conducting Home Sealing; and, follow recommendations for Energy-Efficient HVAC systems

[Energy Efficient Rehabilitation Advisor](#)

This Energy Efficient Rehabilitation Advisor (Advisor) is a web-based tool designed to help local governmental entities and non-profit community organizations improve energy efficiency in existing buildings undergoing moderate rehabilitation and repair. The Advisor aids in preparing an energy profile of a residence and generates a list of recommended measures and the incremental cost, savings, and payback of the energy efficient measures in comparison to the minimum required by the governing code or standard.

The information provided is based on computer models of typical single family and typical multifamily buildings in the climate zone. The results can be used as a guideline or blueprint of the measures to consider. If you are conducting extensive rehabilitation, HUD recommends obtaining the advice of an energy professional, including an energy audit, for more accurate cost, savings, and payback estimates.

The Advisor draws extensively on information from the U.S. Department of Energy and the U.S. Environmental Protection Agency. The Advisor's energy efficiency recommendations are based on ENERGY STAR® specifications, where applicable. The information contained in the Advisor updates the 1996 HUD publications: Guidebook for Optimizing Utility Consumption in Existing One-to-Four Family Dwellings and Guidebook for Optimizing Utility Consumption in Existing Multifamily Dwellings. HUD recommends following these guidelines when undertaking any type of renovation project in single family and multifamily housing, whether it is privately-owned or public housing.

[HOME FRONT](#)

HOME Front is a web-based training and technical assistance site for individuals and organizations implementing the HOME Program throughout the United States.. The HOME Front is made up of a series of interactive training and technical assistance modules. HUD has developed a training module on Energy Efficiency for Grant Recipients who are interested in increasing the energy efficiency of their single and multi-family projects. This module will provide information on the importance of energy efficiency in their rehabilitation projects, strategic ways to increase energy efficiency and the benefits of working with weatherization agencies when developing a rehabilitation program.



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[CPD Energy Clearinghouse](#)

HUD's Office of Community Planning and Development maintains an energy web site that provides information on HUD's Energy Plan, policies, regulations and initiatives and links to related energy sites.

FHA Mortgage Insurance Programs

[Energy Efficient Mortgages Insurance \(EEM\)](#)

The Energy Efficient Mortgages (EEM) program helps homebuyers or homeowners save money on utility bills by enabling them to finance the cost of adding energy-efficiency features to new or existing housing as part of their FHA-insured home purchase or refinancing mortgage. The cost of the improvements that may be eligible for financing as part of the mortgage is either 5 percent of the property's value (not to exceed \$8,000) or \$4,000--whichever is greater. The improvements can be included in a borrower's mortgage only if their total cost is less than the total dollar value of the energy that will be saved during their useful life.

This program seeks to help achieve national energy-efficiency goals (and reduce pollution) and provide better housing for people who might not otherwise be able to afford it. According to a 1986 study by the Joint Center for Housing Studies, by considering the savings on monthly utility bills when determining how large a mortgage the household can afford, as many as 250,000 additional new homebuyers could qualify for financing.

[Title I - Property Improvement Loan Insurance \(Title I\)](#)

The Title I program insures loans to finance the light or moderate rehabilitation of properties, as well as the construction of nonresidential buildings on the property. For energy-efficient housing rehabilitation activities that do not also require buying or refinancing the property, borrowers may also consider HUD's Title I Home Improvement Loan program.

The Title I program may be used to insure such loans for up to 20 years on either single- or multifamily properties. The maximum loan amount is \$25,000 for improving a single-family home or for improving or building a nonresidential structure. For improving a multifamily structure, the maximum loan amount is \$12,000 per family unit, not to exceed a total of \$60,000 for the structure. These are fixed-rate loans, for which lenders charge interest at market rates. HUD does not subsidize the interest rates, although some communities participate in local housing rehabilitation programs that provide reduced-rate property improvement loans through Title I lenders.



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Competitive Grant Programs

[HUD Competitive Housing programs](#)

HUD's annually publishes a Notice of Funding Availability (NOFA) announcing competitive funding opportunities. This announcement is known as HUD's Super-NOFA. In 2005, HUD announced the availability of \$2.3 billion in 53 competitive housing and community development programs that address local needs. These funds are in addition to, and complement, the more than \$31 billion sent to communities in formula grants, housing choice vouchers, and other funding. Applicants are encouraged to undertake program activities that include developing Energy Star promotional and information materials, providing outreach to low- and moderate-income renters and buyers on the benefits and savings when using Energy Star products and appliances, utilizing Energy Star-designated products in the construction or rehabilitation of housing units, and replacing worn products or facilities such as light bulbs, water heaters, furnaces, etc, with Energy Star products to reduce operating costs. Communities and developers are encouraged to promote the designation of community buildings and homes as Energy Star compliant. Funds are available to State and local governments, Indian tribes and nonprofit organizations, public and private developers and managers of affordable housing, universities, PHAs and resident organizations, and graduate students in fields of interest to HUD. Several of the programs in the NOFA include rating factors awarding points to applications that include energy action plans or incorporate Energy Star standards within the design and construction of an eligible project.

Other Initiatives

[Partnership for Advancing Technology in Housing](#)

The Partnership for Advancing Technology in Housing is a HUD-supported public-private initiative dedicated to accelerating the development and use of technologies that radically improve the quality, durability, energy efficiency, environmental performance, and affordability of America's housing. Technology has a clear relationship to the energy a house will use after it is built, as well as the resources consumed and pollution generated during its construction. PATH's vision includes the goal of reducing the energy use and environmental impact of new housing by 50% and energy use in existing homes by 30% in the future. PATH develops new energy- and resource-efficient systems, promotes the recycling of building materials, and helps homeowners and developers remodel their homes with technologies that are proven to reduce energy bills.