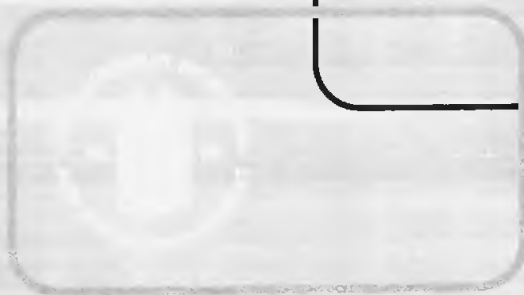


**Energy Efficiency and
Conservation at HUD:
Implementing the
President's National
Energy Policy**

ENERGY
TASK FORCE
ACTION PLAN



U.S. Department of Housing and Urban Development

Implementing the President's National Energy Policy at HUD

ACTION PLAN

Energy Task Force Recommendations

Departmental Energy Task Force

Co-Chairs:

Office of Policy Development and Research
Office of Community Planning and Development

March 2002

“Conservation and energy efficiency are crucial components of a national energy plan. Improved energy efficiency and conservation reduces energy consumption and energy costs, while maintaining equivalent service in our homes, offices, factories and automobiles. Greater energy efficiency helps the United States reduce energy imports, the likelihood of energy shortages, emissions and the volatility of energy prices.”

**President’s National Energy Policy
May 2001**

“I look forward to working under the leadership of President Bush to put his vision of better housing for all, and energy security for all, to work for the nation. He is offering us a responsive, responsible road map for the future.”

**Secretary Mel Martinez, City Club of Cleveland
May 31, 2001**

“With the announcement of the President’s Energy Policy, we now have the necessary framework for promoting increased energy efficiency in housing. HUD is committed to giving this issue the priority attention it deserves to ensure that we make significant progress in conserving energy in housing.”

**Deputy Secretary Alphonso Jackson
June 20, 2001**

INTRODUCTION AND BACKGROUND

Energy efficiency is a key goal of the President's National Energy Policy. The policy states that "the Federal government can promote energy efficiency and conservation by including the dissemination of timely and accurate information regarding the energy use of consumer purchases, setting standards for more energy efficient products, and encouraging industry to develop more efficient products. The Federal Government can also promote energy efficiency and conservation through programs like the Energy Star program, and search for more innovative technologies that improve efficiency and conservation through research and development."¹

The Task Force

In July 2001, Deputy Secretary Alphonso Jackson established a department-wide Energy Task Force to identify measures that the HUD could take to support these goals. In establishing the Task Force, the Deputy Secretary directed the Task Force to develop an Action Plan that addresses the following objectives:

- Improve energy efficiency and conservation in HUD-assisted rental housing
- Expand the use of Energy Efficient Mortgages, consistent with sound underwriting principles.
- Provide technical assistance on energy issues to nonprofits and faith-based organizations.
- Research and development of new energy-efficient technologies

This Action Plan is the product of the Task Force's work. Co-chaired by the Office of Policy Development and Research (PD&R) and the Office of Community Planning and Development (CPD), the Task Force included every program area with a current or potential role in supporting energy efficiency: in addition to CPD and PD&R, the Task Force included FHA single-family and multifamily housing programs, Public and Indian Housing, the Office of Healthy Homes and Lead Hazard Control and representatives from several of HUD's Field Offices. The Task Force also worked closely with the DOE and EPA in developing the Action Plan, and will continue to work with these agencies in implementing key items.

Energy use in HUD's programs

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. An energy efficiency initiative 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.

¹ National Energy Policy Development Group, *National Energy Policy*, May 2000.

In public housing alone, HUD spends an estimated \$1.1 billion each year on utilities, either in direct operating grants or in the form of utility allowances to individual residents. According to a recent report, greater energy efficiency could conservatively save public housing at least \$82 million and as much as \$165 million per year. Similar savings could be achieved in HUD's inventory of assisted multifamily housing, as well as other housing financed by HUD through its formula and competitive grant programs.

Strategy

HUD's strategy for supporting the President's National Energy Policy through the Energy Action Plan will primarily be *operational*, aimed at upgrading the energy efficiency of existing housing using an established inventory of proven energy-efficient products and appliances that can be put to work immediately through existing programs. This will be accomplished through consumer education and outreach, interagency cooperation, market-based incentives, and public-private partnerships. Some research in and development of new or emerging energy-efficient technologies may also be needed, especially in HUD-financed new construction projects.

Most of the measures contained in the Action Plan can be implemented with existing funds and staff using existing legislative authority. The Plan focuses on better use of existing incentives, improving information flows, partnering with other agencies, training and technical capacity building, and stronger enforcement of existing regulations.

ENERGY ACTION PLAN RECOMMENDATIONS

This Energy Action Plan consists of 21 proposed actions that HUD can undertake to support the energy efficiency and conservation goals of the President's National Energy Policy. If implemented, the proposed actions will encourage energy efficiency in some five million housing units that are assisted, insured or subsidized through HUD's programs. For the purpose of this initiative, this housing is collectively referred to as "HUD-financed" housing.¹ The Task Force's recommendations are listed in Exhibit 1 on the following page, and summarized below.

I. IMPLEMENT PARTNERSHIPS WITH DOE AND EPA

1. **Work with EPA to distribute Energy Star information to HUD customers and clients.** A key item in the President's energy policy is the Energy Star program. Managed by EPA, Energy Star is a voluntary labeling program that identifies and promotes energy-efficient products in the marketplace. There are 31 types of Energy Star-labeled products, which together can improve the energy efficiency of an average

¹ For the purposes of this report, HUD-"financed" housing includes the following: public housing (existing units, HOPE VI, Housing Choice vouchers and Indian Housing); FHA-insured single family and multifamily housing (including Section 202/811 housing for seniors and disabled persons); HOME- or CDBG-funded new construction or housing rehabilitation; and housing financed through competitive grant programs such as Youthbuild or McKinney Act homeless assistance grants.

home by as much as 30 to 40 percent.¹ As part of a department-wide effort to promote the use of Energy Star-labeled products, HUD will work with EPA to develop a standardized Energy Star information packet which can then be widely distributed by program offices to field staff, public housing authorities, formula and competitive grant recipients, property managers and where feasible, new FHA home buyers. (Responsible Offices: PIH, Housing, CPD, PD&R). [HUD-1]

2. **Initiate HUD-DOE weatherization partnerships in at least five states.** The President's National Energy Policy assigns a high priority to weatherization assistance for low-income families through the Department of Energy. In response to the President's request, Congress has approved a 40 percent increase in DOE's FY 2002 weatherization funding, for a total of \$230 million. Since a significant number of low-income individuals and families who receive HUD assistance qualify for the weatherization program, HUD will work with DOE to expand the use of these funds in

HUD-financed housing, initially in five states and (eventually) nationwide². One model is a partnership that already exists between HUD and DOE in New York State, where significant weatherization dollars are being invested in HUD-assisted multifamily properties. HUD will work with DOE to replicate this model, possibly in partnership with State Clean Energy Funds, as well as develop similar partnerships in public housing or with HOME and CDBG grant recipients. (Responsible Offices: PIH, Housing, CPD, PD&R). [FHA-4]

HUD will also implement the recommendations of the President's Task Force on Environmental Health Risks and Safety Risks to Children: ensure that weatherization is carried out in a lead-safe manner; explore the feasibility of simultaneously doing weatherization and lead hazard control work; and identify potential business opportunities for weatherization agencies to do lead abatement/hazard control work. (Responsible Offices: Office of Healthy Homes/Lead Hazard Control).

3. **Formalize these interagency partnerships.** The Task Force recommends that HUD formalize the proposed partnerships with DOE and EPA to implement the joint weatherization and Energy Star activities described above, through memorandums of understanding or partnership agreements. These agreements would preferably be signed by the Secretary or Deputy Secretary. (Responsible Offices: PD&R, CPD). [HUD-2]

¹ Energy Star-labeled products include washers and dryers, refrigerators, windows, heating and cooling equipment, as well as lighting fixtures and bulbs. More than 1,200 manufacturers and retailers and 7,000 retail stores participate in promoting Energy Star products.

² DOE has regional offices in the following locations: Boston, Atlanta, Chicago, Denver, Philadelphia, and Seattle. Partnerships would be established in five of these six regions.

II. PROVIDE INFORMATION, TRAINING AND TECHNICAL ASSISTANCE

4. **Coordinate Department-wide training workshops, and standardize information on energy-efficient healthy housing.** In addition to continuing its assistance to public housing authorities through DOE's Rebuild America program, PIH is currently planning two energy training workshops for public housing authorities in FY 2002. These workshops will be expanded to become department-wide in scope by including other programs. PD&R and CPD will also work with program offices to develop uniform or standardized information that can be customized for different audiences, including updated guidebooks, and a newsletter highlighting energy topics for grant recipients and program managers. (Responsible Offices: PIH, Housing, CPD, Office of Healthy Homes/Lead Hazard Control, PD&R). [HUD-3]
5. **Sponsor energy efficiency training for assisted multifamily housing managers and maintenance staff.** Energy expenditures account for as much as 40 percent of total multifamily building operating costs. Significant energy savings can be achieved without major capital investments, simply by improving monitoring and maintenance of existing equipment. A program sponsored by New York State has successfully trained multifamily building managers and maintenance staff in low or no-cost energy management techniques, using a Workbook developed by HUD in 1998.¹ Working with multifamily trade organizations, FHA will support similar hands-on training in HUD-assisted multifamily buildings. (Responsible Office: Housing). [FHA 5]
6. **Provide technical assistance to encourage energy efficiency when using HOME and CDBG funds.** The HOME program will continue the energy efficiency component of its sustainable development technical assistance to Participating Jurisdictions (PJs) and Community Housing Development Organizations (CHDOs), and prepare a new guidebook on energy-efficient housing rehabilitation with HOME funds. Funding is also needed to assist CDBG grantees and their sub-recipients with the architectural and engineering expertise they need to build, manage and operate energy-efficient healthy housing. (Responsible Office: CPD). [CPD-1]
7. **Work with HUD's Center for Faith-Based and Community Initiatives to assist non-profit and faith-based organizations.** Non-profit and faith-based organizations are major sponsors, developers or managers of affordable housing. Program offices and PD&R will work with the Center, as well as with national intermediaries such as LISC, Habitat for Humanity, the Enterprise Foundation and the Neighborhood Reinvestment Corporation, to ensure that non-profits and faith-based organizations have access to information on energy-efficient construction and rehabilitation processes, as well as to HUD-sponsored training and technical assistance. (Responsible Office: Center for Faith-Based and Community Initiatives, CPD, Housing, PD&R). [HUD-4]

¹ This is a five-day, 30-hour "Training for Energy Management Practices" sponsored by the New York State Division of Housing and Community Renewal (DHCR) for New York State-assisted multifamily properties. Participants are charged \$750 to participate in the training.

III. STRENGTHEN ENERGY PROGRAM REWARDS AND INCENTIVES

8. **Streamline procedures for energy performance contracting in public housing.** First authorized by Congress in 1987, energy performance contracting is an important vehicle for carrying out energy efficiency measures. An energy performance contract is an agreement with a private energy services company which, after performing an energy audit, provides financing for recommended energy efficiency measures, oversees the installation of these measures, and provides long-term services such as monitoring of energy use, training of maintenance staff, and energy education of residents. Typically, the company guarantees a certain level of savings, and “shares” the savings with the housing authority.

To streamline approval of these complicated contracts, PIH will centralize processing of performance contracting proposals in a single office, either at Headquarters or in its Special Applications Center (SAC) in Chicago, staff this operation with strong technical (engineering and financial analysis) expertise, and take other steps to expedite processing and improve the operation of this program. (Responsible Office: PIH). [PIH-1]

9. **Feature the Energy-Efficient Mortgage (EEM) as a priority loan product.** The Energy-Efficient Mortgage is FHA’s primary resource for helping homeowners reduce energy costs. The EEM is an important, but underutilized, vehicle for financing energy efficiency improvements in older homes.¹ FHA will consolidate and clarify current underwriting and processing policies in a single Mortgagee Letter, provide training for HUD staff, underwriters and program support staff on Energy-Efficient Mortgage policies, expand its EEM marketing efforts, and include EEMs and energy efficiency in homeownership counseling. FHA will also seek legislative authority to adjust the current five percent, \$8,000 limit on the additional amount that can be borrowed under an Energy-Efficient Mortgage, to reflect increases in the cost of retrofits for single family homes. (Responsible Office: Housing). [FHA-1]

10. **Simplify regulatory requirements for Energy-Efficient Mortgages.** To qualify for an Energy-Efficient Mortgage, a home must achieve a minimum Home Energy Rating Service (HERS) rating. A HERS rating is a standardized evaluation performed by a certified energy auditor of the energy efficiency of a home; it typically requires at least one on-site inspection. While the HERS rating serves a valuable function for both lenders and borrowers, in some states it can also be a deterrent to more widespread use of the Energy-Efficient Mortgage, because of its cost, the lack of qualified raters, or the requirement for both an initial and follow-up inspection. FHA will research the legislation regarding the requirement for a HERS rating and explore ways to simplify this requirement. (Responsible Office: Housing). [FHA-2]

¹ The FHA Energy-Efficient Mortgage allows home buyers to borrow a minimum of \$4,000 and a maximum of 5 percent (up to \$8,000) of the home’s appraised value to finance energy efficiency improvements at the time of purchase. FHA has already insured more than 80,000 of these mortgages since the program began as a pilot program in 1993, and the current annual reported rate is approximately 30,000 such mortgages per year.

11. **Award priority rating points for energy- efficient housing in HUD's competitive grant programs.** A number of HUD's competitive grant programs will award rating points for proposals that include energy efficiency in planned housing projects. This will primarily impact HUD's competitive new construction programs (HOPE VI, Section 202 and Section 811), but will also include CPD's competitive economic development programs that finance housing rehabilitation or new construction (such as Youthbuild) as well as competitive grants awarded through the Office of Healthy Homes and Lead Hazard Control. (Responsible Offices: PIH, CPD, Housing, Office of Healthy Homes and Lead Hazard Control). [HUD 5]

IV. **STRENGTHEN STANDARDS AND COMPLIANCE WITH PROGRAM REQUIREMENTS**

12. **Require housing authorities to base all equipment purchases on Energy Star standards, unless they demonstrate that this will not be cost-effective.** Procurement guidelines currently require housing authorities to purchase equipment that meets minimum efficiency standards set by the Department of Energy. PIH is interested in expanding the use of energy-efficient equipment and appliances in public housing, where it is cost-effective to do so. Housing authorities would be required to purchase Energy Star equipment when this results in energy savings to the PHA that are sufficient to repay the initial higher costs over the expected life of the equipment, when the equipment is cost effective to maintain, and the purchase does not limit housing authorities' ability to address emergency, accessibility or lead paint mitigation priorities. (Responsible Office: PIH). [PIH-2]
13. **Establish HOPE VI as a leader in cost-effective, energy-efficient new construction.** HUD's standard for all new housing built with HUD funds is the 1992 Model Energy Code. HOPE VI will require new housing built through the program to achieve an Energy Star rating for new homes (30 percent above the 1995 Model Energy Code), unless the housing authority demonstrates that the higher standard cannot be achieved within Total Development Cost (TDC) limits. A recent HOPE VI project in Holyoke, Massachusetts was able to achieve an Energy Star rating within TDC limits. (Responsible Office: PIH). [PIH-3]

V. **IMPROVE ENERGY PROGRAM MANAGEMENT AND MONITORING**

14. **Assign agency-wide responsibility for coordinating and supporting HUD's energy programs.** This coordination will be necessary for successful implementation of the proposed Action Plan. The responsible office (either CPD or PD&R) would work with individual programs to set efficiency goals, collect utilities information, develop training and informational materials, facilitate relationships with DOE and EPA, and provide technical support as needed. In addition to this agency-wide function, each HUD office would need to designate at least a full-time, qualified person to staff up its own activities, and participate in an on-going Energy Task Force to coordinate its activities with other programs. Finally, consideration should be given to the creation of Energy Specialists in the field, and the possible assignment of qualified HUD staff including former

Community Builders with expertise in this subject to fill these positions. (Responsible Office: Either CPD or PD&R). [HUD-6]

15. **Include energy efficiency performance measures in the Annual Performance Plan.** Performance measures that set goals and gauge improvements in energy efficiency will be incorporated in HUD's Annual Performance Plan and, where feasible, in individual program Management Plans. Performance measures that may involve a change to Indian Housing Plans must be submitted to tribal consultation before adoption. (Responsible Offices: PIH, CPD, Housing, PD&R, Office of Healthy Homes/Lead Hazard Control). [HUD-7]
16. **Improve tracking and monitoring of energy efficiency in public and assisted housing.** The Office of Housing and PIH will work with PD&R and the PIH Real Estate Assessment Center (PIH-REAC) to determine the feasibility of enhancing PIH-REAC's data collection to facilitate tracking and monitoring of energy efficiency. Such enhancements to both the physical inspection and/or financial condition data collection will be considered. Currently, the information that HUD collects on utility consumption in public and assisted housing makes it difficult to set benchmarks or energy efficiency goals, identify top or poor performers or track performance over time.¹ (Responsible Offices: PIH, Housing, REAC, PD&R). [PIH-4]
17. **Improve tracking and evaluate performance of Energy Efficient Mortgages.** To assist HUD in tracking the performance of Energy Efficient Mortgages, FHA will take steps to improve the accuracy of the reporting of these mortgages. The current tracking system does not provide a reliable count of Energy Efficient Mortgages. PD&R and FHA will also study FHA's experience with Energy Efficient Mortgages to determine the relative risk of default and claims for this mortgage product compared to other types of FHA mortgages: (Responsible Offices: Housing and PD&R [FHA-3])

VI. SUPPORT FURTHER RESEARCH AND TECHNOLOGY DEVELOPMENT

18. **Conduct energy-related policy analysis and research.** PD&R will conduct a number of policy studies aimed at giving the Department better information about the potential for reducing energy consumption in HUD-affiliated properties. Studies or evaluations currently under consideration include: testing of a model for estimating utility allowances against actual utility allowances; an evaluation of the cost-benefits of Energy Star for HUD-financed housing; and an evaluation of energy-efficient rehab or new construction through CDBG and HOME. (Responsible Office: PD&R). [PD&R-1]
19. **Where appropriate, research, test or demonstrate innovative technologies in new construction and existing housing.** While the primary emphasis of this Action Plan is on the use of existing and currently-available technologies, PD&R will support

¹ Performance tracking or monitoring requirements that result in a regulatory change or changes to the Indian Housing Plan must be submitted to tribal consultation with the affected groups before any such changes can be implemented.

cooperative research on new energy-efficient technologies with funds through the Partnership for Advancing Technology in Housing (PATH). PD&R will also increase the number of PATH demonstrations and field tests that are specifically directed at energy efficiency. In addition, PD&R will identify ways that the expertise of DOE's national laboratories can be put to work in HUD-financed housing. (Responsible Office: PD&R). [PD&R-2]

- 20.. **Promote combined heat and power (CHP) in public or assisted housing.** Combined heat and power, also known as co-generation, is a highly efficient form of electric generation, which recycles and utilizes heat that is normally lost under traditional power combustion methods. The President's National Energy Policy recommends expanding the use of this form of energy; in support of this recommendation HUD will cooperate with DOE and EPA to support the use of CHP by local housing authorities, as well as through the Brownfields Economic Development Initiative, the EC/EZ/RC program and other HUD programs. (Responsible Office: CPD). [CPD-2]

21. **Develop integrated approaches to energy efficiency and environmental hazards in the home.** The Office of Healthy Homes and Lead Hazard Control will encourage cost-effective techniques that jointly address environmental hazards and energy efficiency. The Office will publish a report on the feasibility of an integrated "Energy-Efficient Healthy Home Retrofit" that reduces home energy consumption by 30 percent, meets Energy Star performance requirements, and addresses a variety of housing-based environmental hazards, including lead, carbon monoxide, mold, radon and allergens. The Office will also fund the development of a computerized assessment tool that combines energy efficiency, safety, and health issues in a single "Healthy Homes Energy Audit." (Responsible Office: Office of Healthy Homes and Lead Hazard Control). [OHHLC-1]

Exhibit 1: Energy Task Force Recommendations

I. Strengthen interagency partnerships with EPA and DOE

1. Work with EPA to distribute Energy Star information to HUD customers
2. Establish HUD-DOE weatherization partnerships in five states
3. Formalize these partnerships (through MOUs or partnership agreements)

II. Provide information, training and technical assistance

4. Coordinate department-wide workshops and standardize information
5. Sponsor training for assisted housing managers and maintenance staff
6. Provide technical assistance to encourage greater energy efficiency through CDBG and HOME
7. Work with Center for Faith-Based and Community Initiatives to assist non-profits and faith-based organizations

III. Strengthen rewards and incentives

8. Streamline procedures for energy performance contracting in public housing
9. Feature the Energy -Efficient Mortgage as a priority loan product
10. Simplify regulatory requirements for Energy -Efficient Mortgages
11. Award priority rating points for energy efficiency in competitive grant programs

IV. Strengthen energy standards and compliance with program requirements

12. Require housing authorities to purchase Energy Star equipment when cost-effective
13. Establish HOPE VI as a leader in cost-effective energy-efficient new construction

V. Improve energy program management and monitoring

14. Assign agency-wide responsibility for coordinating HUD's energy programs.
15. Include energy efficiency performance measures in Annual Performance Plan
16. Improve tracking and monitoring of energy use in public & assisted housing
17. Improve tracking and evaluate the performance of Energy-Efficient Mortgages

VI. Technology development and policy analysis

18. Conduct energy-related policy analysis and research
19. Research, test and demonstrate innovative technologies
20. Promote the use of Combined Heat and Power (CHP)
21. Develop integrated approaches to energy and environmental retrofits

ENERGY TASK FORCE

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