U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

OFFICE OF PUBLIC AND INDIAN HOUSING

SPECIAL ATTENTION ON:	**NOTICE PIH 2009 - 9 (HA)**
Public Housing Agencies; Hub Directors of Public Housing; PIH Program Center Coordinators; Public Housing Division Directors; Resident Management Corporations; Regional Environmental Officers Field Environmental Officers Regional Energy Coordinators	Issued: March 5, 2009 Expires: March 31, 2010 Cross Reference **24 CFR 85.36** **24 CFR 965.306** **24 CFR Part 941** **24 CFR 990** **This supersedes Notice PIH 2007-30**

SUBJECT: Using ENERGY STAR to Promote Energy Efficiency in Public Housing

1. **PURPOSE** This Notice updates guidance encouraging ENERGY STAR as the standard for Public Housing Agencies (PHAs). Purchase of ENERGY STAR - labeled products, adoption of the whole-house approach *Home Performance with ENERGY STAR*, which emphasis a holistic approach to building performance and construction of ENERGY STAR qualified residential structures (HOPE VI), by PHAs support the goals of the President's National Energy Policy by reducing the burden of public housing energy costs while increasing comfort and reducing health risks to public housing residents.

2. **APPLICABILITY** This Notice applies to PHAs operating public housing.

3. **BACKGROUND** Nationwide, for PHA fiscal years ending between 9/30/07 and 6/30/08, PHA-paid utilities totaled $1.60 billion annually or 24 percent of the costs to operate public housing. It is estimated by the Office of Public Housing and Voucher Programs that $460 million in utility costs are paid by residents which are paid indirectly by PHAs in the form of utility allowances that reduce resident rents. The use of ENERGY STAR equipment and techniques, with proper maintenance, can significantly reduce energy consumption and expenditures.

The Energy Policy Act of 2005 emphasizes that ENERGY STAR should be selected whenever energy systems, devices, and appliances are replaced unless it is not cost effective to do so. In accordance with 24 CFR 965-306, when purchasing original or, when needed, replacement equipment, PHAs shall acquire only equipment that meets or exceeds the minimum efficiency requirements established by the U.S. Department of Energy (DOE). In the operation of their

facilities, PHAs shall follow operating practices directed to maximize energy conservation. This notice encourages increasing the standard to that of purchasing ENERGY STAR PRODUCTS.

HUD is interested in promoting and expanding the use of energy-efficient equipment, appliances and standards in public housing in order to reduce energy consumption and to control operating costs. PHAs are encouraged to purchase ENERGY STAR equipment as replacement needs occur, adopt *Home Performance with ENERGY STAR* as part of any rehabilitation or modernization initiative, and construct ENERGY STAR qualified homes as part of any new construction project, if economically feasible.

4. **ENERGY STAR PRODUCTS** In 1992, the U.S. Environmental Protection Agency (EPA) introduced the ENERGY STAR label to identify and promote energy-efficient products that exceed minimum efficiency requirements. The ENERGY STAR LABEL is now on major appliances, heating and cooling equipment, windows, lighting, and over 50 other product categories. More than 70% of American households recognize the ENERGY STAR label. In 2007 alone, ENERGY STAR helped Americans save more than $8 billion on their utility bills. To date, more than 2.5 billion ENERGY STAR labeled products have been sold.

Through the EPA's partnerships with more than 8,000 private and public sector organizations, the ENERGY STAR INITIATIVE can deliver the technical information and tools that organizations and consumers need to choose efficient energy solutions and best management practices. The ENERGY STAR initiative has successfully delivered cost savings across the country, saving businesses, organizations and consumers more than $8 billion a year.

ENERGY STAR PROVIDES PHAs with a common specification for energy efficiency that goes beyond minimum efficiency requirements. This can significantly reduce public housing energy costs and provide residents increased comfort and reduced health risks. Moreover, specifying ENERGY STAR WHEN purchasing equipment eliminates any confusion caused by different energy-efficiency thresholds. By focusing energy-efficiency initiatives on ENERGY STAR, PHAs can build on the market momentum established in the marketplace and take advantage of bulk purchasing initiatives, energy-efficient construction expertise, and combined heat and power systems.

5. **APPLICATION TO ASSET MANAGEMENT** In accordance with 24 CFR 990, HUD is shifting the focus of the public housing program from the "agency" to the "projects." In keeping with these changes, each project receives its own Utility Expense Level (UEL) and PHAs are required to maintain utility costs and consumption at the project level. PHAs should plan for energy conservation measures on a project-by-project basis. To the extent that a project can achieve

energy savings, that will mean more funds available to the project for other operating costs.

6. **USING ENERGY STAR IN PUBLIC HOUSING** PHAs should use ENERGY STAR effectively in both existing public housing and in the modernization or development of public housing. In existing housing, PHAs can replace equipment or appliances with ENERGY STAR MODELS. For more permanent savings that return energy savings many times longer than the life of an appliance, PHAs can also adopt the whole-house approach of *Home Performance with ENERGY STAR*.

   Several states have begun requiring new affordable housing be built to ENERGY STAR specifications. In the development of public housing, PHAs should specify that the house/unit meet the ENERGY STAR requirements for new construction provided that it is within the cost requirements in 24 CFR Part 941. PHAs should also specify that the house/unit be built to meet the ENERGY STAR requirements for new construction which is at least 15 percent better than homes built to the 2004 International Residential Code. Purchase of ENERGY STAR equipment, as with all procurement transactions, must be consistent with the standards set forth in 24 CFR 85.36.

7. **ENERGY STAR PRODUCTS FOR EXISTING BUILDINGS** Purchasing energy efficient appliances and equipment provides an opportunity to conserve energy and reduce operating costs. PHAs should always consider ENERGY STAR WHEN purchasing products or appliances since more efficient equipment pays for itself with energy savings and it offers an opportunity for the PHA to reduce operating costs.

   ENERGY STAR provides a label on over 50 product categories and numerous models for residential applications. ENERGY STAR products are 10 to 30 percent more efficient than products that meet the minimum DOE standards. New ENERGY STAR PRODUCTS may be as much as 50 percent more efficient than older equipment. For example, current ENERGY STAR QUALIFIED refrigerators usually require half as much energy as models manufactured before 1993.

8. **PURCHASING COST EFFECTIVE ENERGY EFFICIENT EQUIPMENT/PRODUCTS** PHAs should purchase ENERGY STAR equipment such as appliances when economically feasible. The incremental additional costs for the more energy efficient equipment will be recoverable from energy savings over the expected life of the equipment and the equipment must be cost effective to maintain. If energy savings are insufficient to pay for the additional cost of purchasing ENERGY STAR-labeled equipment, the upgraded equipment should not be purchased unless there are compelling circumstances such as energy being in short supply or emergency conditions that must be considered when making the selection.

There are several ways to calculate the effective cost of equipment when energy savings are accrued over a specific amount of time. Utility costs have a large impact in calculating the effective cost of equipment. ENERGY STAR PRODUCTS provide specific information about savings that can be obtained by reduced energy use.

A PHA should purchase ENERGY STAR-labeled products such as windows and ensure that any new buildings are constructed according to ENERGY STAR STANDARDS, unless the PHA's cost analysis (required by 24 CFR Part 85 and 24 CFR Part 941) finds incremental cost of the ENERGY STAR products or building yields a negative life-cycle cost savings and exceeds HUD's Total Development Cost (TDC) limits.

9. **HOME PERFORMANCE WITH ENERGY STAR** Launched in 2001, the *Home Performance with ENERGY STAR* initiative is an effort to use ENERGY STAR standards to help encourage and facilitate whole-house or whole-building energy improvements. Rather than labeling a particular product, or even a home, *Home Performance with ENERGY STAR* is linked to the building performance. The effort emphasizes consumer education, value and one-stop problem solving. While the program goal is saving energy, its market-based approach and message focus on addressing a variety of customer needs, from comfort and durability to health and safety.

Home Performance with ENERGY STAR has several key components including a whole-house approach, a home energy inspection, diagnostic testing and installation, and quality assurance inspections. The home energy inspections include a complete visual and diagnostic evaluation of all of the home's thermal and mechanical efficiency components such as attic insulation, exterior walls, windows, basements, and heating systems. Diagnostics include air infiltration testing and duct leakage testing, combustion safety testing, and where possible, electric baseload analysis. The inspection results are targeted advice on the home's energy and maintenance problems. Participating contractors can perform any or all of the recommendations, using best practices, including installation of energy-efficient lighting products; insulation; windows; heating, ventilation and air conditioning (HVAC) equipment; water heater insulation blankets; and air-sealing and duct-sealing. Alternatively, contractors maintain a list of providers for those services not directly provided and can assist with coordination and quality assurance inspections. Compliance with 24 CFR Part 85.36 is required for all procurements, including those associated with ENERGY STAR.

10. **ENERGY STAR FOR IN THE DEVELOPMENT OF PUBLIC HOUSING** The memorandum of understanding between HUD, EPA, and DOE addresses implementation of "strategies to achieve an ENERGY STAR RATING in new housing financed through HUD's HOPE VI program, unless a sponsoring housing authority demonstrates the higher standard cannot be achieved within TDC

limits", 24 CFR Part 941 and annual HUD notices on TDC limits. The HUD Energy Action Plan suggests that new housing built through the program achieve an ENERGY STAR rating for new construction, unless the PHA demonstrates that the higher standard cannot be achieved within TDC limits. For example, HOPE VI projects in Holyoke, Massachusetts, and Louisville, Kentucky, were able to meet the ENERGY STAR criteria within TDC limits.

ENERGY STAR qualified homes are independently verified to be at least 15 percent more energy efficient than homes built to the 2004 International Residential Code. These savings are based on heating, cooling, and hot water energy use and are typically achieved through a combination of building envelope upgrades, high performance windows, controlled air infiltration, upgraded HVAC systems, tight duct systems, and upgraded water-heating equipment.

Any single-family or multi-family residential home that is three stories or less in height can qualify to receive the ENERGY STAR LABEL. This includes traditional site-constructed homes as well as modular or systems-built homes with insulated concrete forms or structurally insulated panels. The ENERGY STAR label is earned only after the home's energy efficiency is verified, either by an independent third-party such as an accredited home energy rater or Builder Option Package (BOP) verifier. BOPs present a set of construction specifications for a specific climate zone. For the purposes of using BOPs, the United States has been divided into 19 separate climate zones, and each county is associated with a specific climate zone. BOPs can help simplify the process of constructing an ENERGY STAR qualified new home. They specify performance levels for the thermal envelope, insulation, windows, orientation, HVAC system, and water heating efficiency for each specific climate zone that meet the ENERGY STAR standard.

BOP ratings typically entail at least one on-site inspection of the home to test the leakiness of the envelope and ducts. Once construction is complete, the PHA will need to locate a BOP verifier in the region to test the tightness of the house envelope and ducts. The scores derived from these tests are compared with the pre-determined specification of the BOP to either pass or fail the house as an ENERGY STAR qualified new home. Further information is available at www.energystar.gov/homes

11. **SPECIAL OFFERS AND REBATES FROM ENERGY STAR PARTNERS** To encourage purchase of energy-efficient products, ENERGY STAR PARTNERS occasionally sponsor special offers such as sales tax exemptions, credits, or rebates on qualified products. The ENERGY STAR website has search capability that identifies local opportunities to reduce the purchase price of specific ENERGY STAR PRODUCTS. The search is provided as a service to consumers to find special offers or rebates where they exist, based on information that partners submit to ENERGY STAR. Enter the local zip code to find out if there are any special offers or rebates currently available on ENERGY STAR qualified products in a specific area at

http://www.energystar.gov/index.cfm?fuseaction=store.store_locator. PHAs must follow established procurement requirements when making purchases using special offers.

12. **PROCUREMENT PURCHASING** HUD recognizes the benefits of streamlining the purchase of ENERGY STAR products and PHAs are encouraged to use the DOE's Quantity Quotes website, http://quantityquotes.net, for procurement purchases above $2,000 and below $100,000. If at least three quotes are received using DOE's Energy Star Quantity Quotes, then both the 24 CFR 85.36(d) (1) small purchase procedures and guidance provided in the Procurement Handbook 7460.8 REV 2, paragraph 5.2 are satisfied. If less than three quotes are received using DOE quotes, then the PHA must supplement the difference with other quotes which may include telephone quotes.

If an agency procures centrally for ENERGY STAR equipment over $100,000, then formal purchase procedures shall be followed.

13. **FUTURE OPPORTUNITIES FOR PHAS** The EPA and HUD will continue to work to provide value for ENERGY STAR IN public housing. In addition to expanding the bulk purchasing initiative, PHAs should also consider specifying, whenever cost effective, ENERGY STAR EQUIPMENT in energy performance contracts.

14. **CONTACTS** Questions regarding this Notice should be directed to Nicole Faison, Director, Office of Public Housing programs, at (202) 708-0744. For additional information on energy issues for public housing, contact the Public Housing Environmental and Conservation Clearinghouse (PHECC) through its website at http://www.hud.gov/offices/pih/programs/ph/phecc or by telephone at (800) 955-2232. More information on ENERGY STAR can be found at www.energystar.gov. You can also contact Brian Ng, Affordable Housing Coordinator for ENERGY STAR WITH EPA at (202) 343-9162 or send him an email at ng.brian@epa.gov. For ENERGY STAR INFORMATION for Public Housing, contact Leroy Ferguson, HUD HQ Office of Public Housing Programs, at (202) 402-2411.

/s/

Paula O. Blunt, General Deputy Assistant Secretary
for Public and Indian Housing