



Partnerships for Home Energy Efficiency

An Overview



The Partnerships for Home Energy Efficiency is a new, multi-agency effort of the U.S. Department of Energy (DOE), Department of Housing and Urban Development (HUD), and Environmental Protection Agency (EPA) to bring greater energy efficiency to the U.S. housing market. Our goal is to help households save 10 percent or more on home energy bills over the next 10 years. The initiative builds on existing policies and programs that involve partnerships with manufacturers, retailers, home contractors and remodelers, utilities, states, financial organizations, and educational institutions, among others, to leverage the power and creativity of the marketplace. Together we can significantly improve the efficiency of America's homes over the next decade, bringing better, cost-effective services, technologies, products and practices into residences and helping us all be part of the energy efficiency solution. Savings of 10 percent on home energy bills would total almost \$20 billion a year. Such an achievement also would help increase the affordability and comfort of homes, reduce demand for natural gas by more than 1 quad, avoid the need for more than 40 power plants, and prevent the greenhouse gas emissions equivalent to those from more than 25 million vehicles.

Background

Americans spend more than \$160 billion a year to heat, cool, light, and live in our homes. This national bill is expected to grow over the next 10 years. Our homes use about 21 percent of the energy we as a nation use annually, consume a significant amount of electricity and natural gas, and contribute about 17 percent of U.S. emissions of greenhouse gases. While our homes are more efficient today than they were 30 years ago, great opportunities remain for even more home energy efficiency. The benefits to us all of more efficient homes include

- ▶ Energy bill savings
- ▶ Reduced demands on limited incomes
- ▶ Improved affordability of home ownership
- ▶ Improved comfort and durability of homes
- ▶ Reduced risk of energy shortages and higher energy prices
- ▶ Avoided new power generation
- ▶ Avoided emissions of greenhouse gases and air pollutants

KEY MILESTONES OF THE PARTNERSHIPS FOR HOME ENERGY EFFICIENCY

Fall 2005

- ▶ National outreach on energy-efficient lighting
- ▶ National outreach on energy-efficient heating equipment and the how-to's of home sealing
- ▶ Expansion of Home Performance with ENERGY STAR to new regions
- ▶ Revised energy efficiency specifications for ENERGY STAR new homes
- ▶ Protocols for energy-efficient remodeling of existing homes initiated
- ▶ HUD Phase II Energy Action Plan for single and multifamily homes initiated
- ▶ DOE release of HVAC Best Practices guides for home remodelers

Winter/Spring 2006

- ▶ New accreditation standards and quality assurance criteria for home contractors
- ▶ DOE release of 30 percent HVAC Best Practice Builder Guides
- ▶ New ENERGY STAR guidelines for proper installation and verification of HVAC equipment
- ▶ DOE release of Energy Efficient Remodeler Training

Summer/Fall 2006

- ▶ Fall ENERGY STAR campaigns for energy-efficient lighting, heating equipment, and home sealing
- ▶ Expansion of Home Performance with ENERGY STAR to new regions
- ▶ HUD release of home improvement protocols for remodeler industry
- ▶ DOE research on homes that achieve 30 percent whole home energy savings completed
- ▶ DOE launch of research on homes that achieve 50 percent whole home energy savings

Many households can save 20 to 30 percent on their energy bills through cost-effective improvements, such as purchasing more efficient appliances, lighting, and heating and cooling equipment. Owners and renters can also improve the efficiency of the home itself by installing better insulation, sealing cracks around windows, and more.

Partnerships for Home Energy Efficiency

DOE, HUD, and EPA are extending existing partnerships and building new ones. These partnerships will encourage greater use of efficient products, develop and promote a new suite of energy efficiency services, deliver energy efficiency to low income and subsidized housing, improve access to financing, provide technical assistance and training to building professionals, and continue to integrate the results of innovative research on building science technologies, practices, and policies into residential practices. More specifically, the three federal Agencies will

- ▶ **Expand efforts to promote ENERGY STAR products.** The ENERGY STAR® label—the government-backed symbol for energy efficiency—is recognized by more than 60 percent of the public, and one in three people report using the label as part of a recent purchase decision. Product models in more than 40 product categories can earn the ENERGY STAR, and the energy bill of a home fully equipped with ENERGY STAR qualifying products can be 20 to 30 percent lower. The federal government will expand the ENERGY STAR program to include more products for the home. The Agencies and their partners will work to increase consumer awareness of the savings available by making efficient product choices—focusing primarily on seasonal national outreach campaigns that highlight efficient products at just the time people are most frequently considering their purchase.
- ▶ **Develop new energy efficiency services to provide homeowners with greater savings.** Beyond the choice of products, important savings opportunities in a home involve improving the efficiency of the home itself. The federal government is assisting the energy services, remodeling, and rehabilitation industries in developing new energy efficiency services to more readily provide savings to homeowners. As a key part of this effort, the three Agencies have teamed up to offer Home Performance with ENERGY STAR, a whole house retrofit program to be offered by trained, certified contractors using standardized practices whose work will be quality controlled. The program will help homeowners obtain properly sized and installed heating and cooling equipment, reliable home energy audits to help guide

home improvement investments, and access to qualified home contractors. The Agencies will also provide guidance on energy efficiency best practices to home remodelers and promote the availability of energy efficiency financing through the Federal Housing Administration, Fannie Mae, and Freddie Mac.

- ▶ **Promote energy efficiency in affordable housing.** The most affordable homes are those that are also energy efficient with a lower monthly energy bill that places a smaller burden on limited monthly resources. The federal government will build on work such as DOE's successful Weatherization Assistance Program, which completes more than 100,000 retrofits of low income houses each year. HUD will continue to implement a wide ranging Energy Action Plan to reduce the estimated \$4 billion annual utility bill of the nation's affordable housing stock. Efforts include expanding the use of ENERGY STAR guidelines so that more public and assisted housing earns the ENERGY STAR label, adopting these guidelines so that more federally funded new housing and substantial rehabilitation qualify for the ENERGY STAR label, and expanding the use of Energy Efficient Mortgages to lower the cost of home ownership.
- ▶ **Continue to invest in innovative research in building science technologies, practices, and policies.** DOE and HUD will continue to conduct robust building science research programs. While much of the research underway applies to new home construction, research results offer important solutions for existing homes as well. Through DOE's Building America and Climate Vision Programs and HUD's Partnership for Advancing Technology in Housing (PATH), the Agencies will continue to build partnerships with industry and others to develop new, cost-effective technologies, practices, and policies for improving the efficiency of the nation's homes. Research results will inform best practices, technical assistance, and training for housing professionals.

The Partnerships for Home Energy Efficiency helps fulfill recommendations of the National Energy Policy and helps the United States meet the President's national goal for reducing the greenhouse gas intensity of the country by 18 percent by 2012. Key milestones for this initiative over the next 2 years are highlighted above.

For More Information

For more information, please see the *Partnerships for Home Energy Efficiency* summary document and visit www.energysavers.gov.