

# ENERGY STAR 2011

## Frequently Asked Questions



EPA is developing new guidelines for ENERGY STAR qualified homes. This FAQ sheet contains key information to help you understand the purpose of the new guidelines and how they are being developed. Additional questions & answers will be developed in response to inquiries from stakeholders.

### **Why are the guidelines changing?**

Residential energy efficiency is rapidly evolving in the U.S. 10-20% of states have adopted or are studying the adoption of energy codes more stringent than the 2006 IECC, and many significant new requirements were adopted in the 2009 IECC. Furthermore, the current over-supply of housing stock in the marketplace reinforces the need for ENERGY STAR qualified homes to stand out from the competition. EPA is developing new guidelines to help ensure that ENERGY STAR continues to deliver homes that are high-quality and meaningfully more efficient than standard new construction. More rigorous guidelines will strengthen the integrity and value of the ENERGY STAR label, thereby increasing the success of raters' and builders' partnerships with ENERGY STAR.

### **What aspects of the guidelines are being improved?**

EPA ensures that ENERGY STAR qualified homes represent the standard for energy-efficient, high-quality home construction by including additional cost-effective energy efficiency technologies; adopting key details that improve efficiency, durability, and indoor air quality; and further ensuring that key components and equipment are installed according to best practices.

### **Will there still be a prescriptive path and a performance path?**

As with the current guidelines, ENERGY STAR 2011 includes both a prescriptive and a performance path. However, there are significant changes to both paths in the proposed guidelines.

### **Why is EPA no longer relying directly on a single, national HERS Index?**

ENERGY STAR 2011 will continue to include a performance path that requires the use of a HERS Index. In addition, EPA continues to support the efforts of RESNET and other organizations to develop a consistent approach to measuring and verifying the energy efficiency of homes. However, EPA does not intend to continue using a fixed HERS Index threshold to achieve the following goals:

#### **1. Promote advanced building practices**

EPA has explored how to continue to specify a fixed HERS index threshold for the 2011 guidelines. However, EPA has found that homes with the same energy efficiency features within the same climate zone can have significantly different HERS indices due to house size, aspect ratio, fuel type, adiabatic surfaces, foundation type, number of bedrooms, and number of stories. While these parameters do impact energy consumption, EPA has observed in the past that this variation within a climate zone has allowed some builders to avoid key efficiency measures (e.g., high efficiency cooling in hot climates). Furthermore, because all eight climate zones each require a different set of efficiency measures, EPA's ability to set one or two HERS Index thresholds that encourage important measures is limited. The ENERGY STAR HERS Index Target developed through the Simulated Performance Method alleviates these problems.

#### **2. Accommodate rigorous energy codes**

EPA has had to invest significant resources to accommodate states such as California, Oregon, and Washington with customized guidelines to ensure above-code performance. Fueled by the growing interest in energy independence and climate change, additional states such as Florida, Massachusetts, and New York are seeking to adopt rigorous energy codes.

The proposed guidelines require that all state energy code requirements more stringent than the national ENERGY STAR Reference Design Home take precedence. This will automatically ensure that ENERGY STAR guidelines exceed code and reduce the current time and cost burden of developing custom solutions

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for each state based on a fixed national HERS Index threshold, or even multiple thresholds for various parts of the country. These are resources that would be better allocated to outreach and quality assurance.

### 3. **Better communicate ENERGY STAR performance**

The proposed guidelines require five checklists that are not currently incorporated into the HERS standards. EPA is committed to working with the HERS community to develop standards and processes that incorporate these checklists into the HERS methodology. Until that time, a national HERS threshold understates the true energy savings of the program. For example, savings for the current guidelines are most commonly cited as 15 percent greater than code based on the fixed HERS Index threshold of 85 used for most of country. However, actual savings are significantly higher with the contribution from the Thermal Bypass Checklist, which is not currently part of HERS software calculations. The potential to understate savings with the proposed 2011 guidelines is even greater based on the additional requirements that are also currently not part of the current HERS standards. The proposed performance path provides the opportunity to more accurately associate the ENERGY STAR 2011 threshold with homes that include comprehensive building science measures and that are roughly equivalent to homes 35 percent more efficient than the 2006 IECC. EPA would like to work with RESNET to incorporate the additional energy saving features and processes in ENERGY STAR 2011 into the HERS rating methodology.

#### **Why is there a size adjustment factor for large homes?**

Houses of all sizes will continue to be eligible to earn the ENERGY STAR. However, larger homes will be subject to a size-adjustment factor that will reduce the HERS Index Target threshold and require additional energy efficiency measures. The adjustment factor will result in a carbon footprint for a large home that is more in-line with the footprint of an average-size home. This reflects EPA's ultimate goal of minimizing the carbon footprint of new homes rather than exclusively evaluating relative improvement.

#### **How is ENERGY STAR 2011 being developed? When will it be finalized? When will it take effect?**

A public review process is underway until July 10, 2009. Input from program stakeholders, including builders, program sponsors, and the HERS community, is important to developing rigorous and successful guidelines.

EPA aims to release the final guidelines in late 2009. Homes permitted on or after January 1, 2011 will be required to meet ENERGY STAR 2011 guidelines to earn the ENERGY STAR. Homes permitted prior to January 1, 2011 can continue to be qualified using the current guidelines until July 1, 2011, when all homes must be qualified under ENERGY STAR 2011 regardless of the date of permitting. The phase-in period may be accelerated in states with advanced energy codes to ensure that ENERGY STAR continues to deliver above-code performance.

#### **What kinds of training will be available to raters, Providers, and builders about ENERGY STAR 2011?**

Information and trainings on ENERGY STAR 2011 will be made available through:

- Detailed guidebooks on performing required inspections (similar to the existing Thermal Bypass Inspection Checklist Guide)
- Online training, Q&A sessions, conference calls, and participation in RESNET Rater Roundtables
- Live presentations and field training at industry conferences (e.g., RESNET, ACI, EEBA, and regional ENERGY STAR events)
- Self-guided presentations posted to the ENERGY STAR Web site
- Outreach to HERS training providers

#### **What will happen to the regional guidelines currently used in California, Hawaii, and the Pacific Northwest?**

ENERGY STAR 2011 assures above-code performance by requiring that state energy code requirements exceeding the national ENERGY STAR Reference Design Home be incorporated into a state or region-specific ENERGY STAR Reference Design Home. Separate regional guidelines for California and the Pacific Northwest will no longer be

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necessary. Additionally, as the IECC becomes more stringent, those more stringent requirements may be incorporated into the national ENERGY STAR Reference Design Home.

The unique climate in Hawaii, with often minimal or non-existent space cooling and heating loads, will continue to require unique guidelines similar to the current Hawaii BOP.

### **Where can I get more information?**

EPA has created a number of [supplementary documents](#) to further explain the rationale for and the methodology behind the proposed ENERGY STAR 2011. Additionally, EPA will host a number of Q&A sessions to answer questions about ENERGY STAR. Although attendance will be strictly capped, EPA will add sessions as needed to accommodate the demand.

You can register for Q&A sessions by reviewing the [calendar](#) and selecting a date. You will be asked to submit questions in advance when you register. Questions submitted ahead of time will be answered before any new questions are accepted during the session. *Note: These sessions are for questions only; comments must be submitted separately*