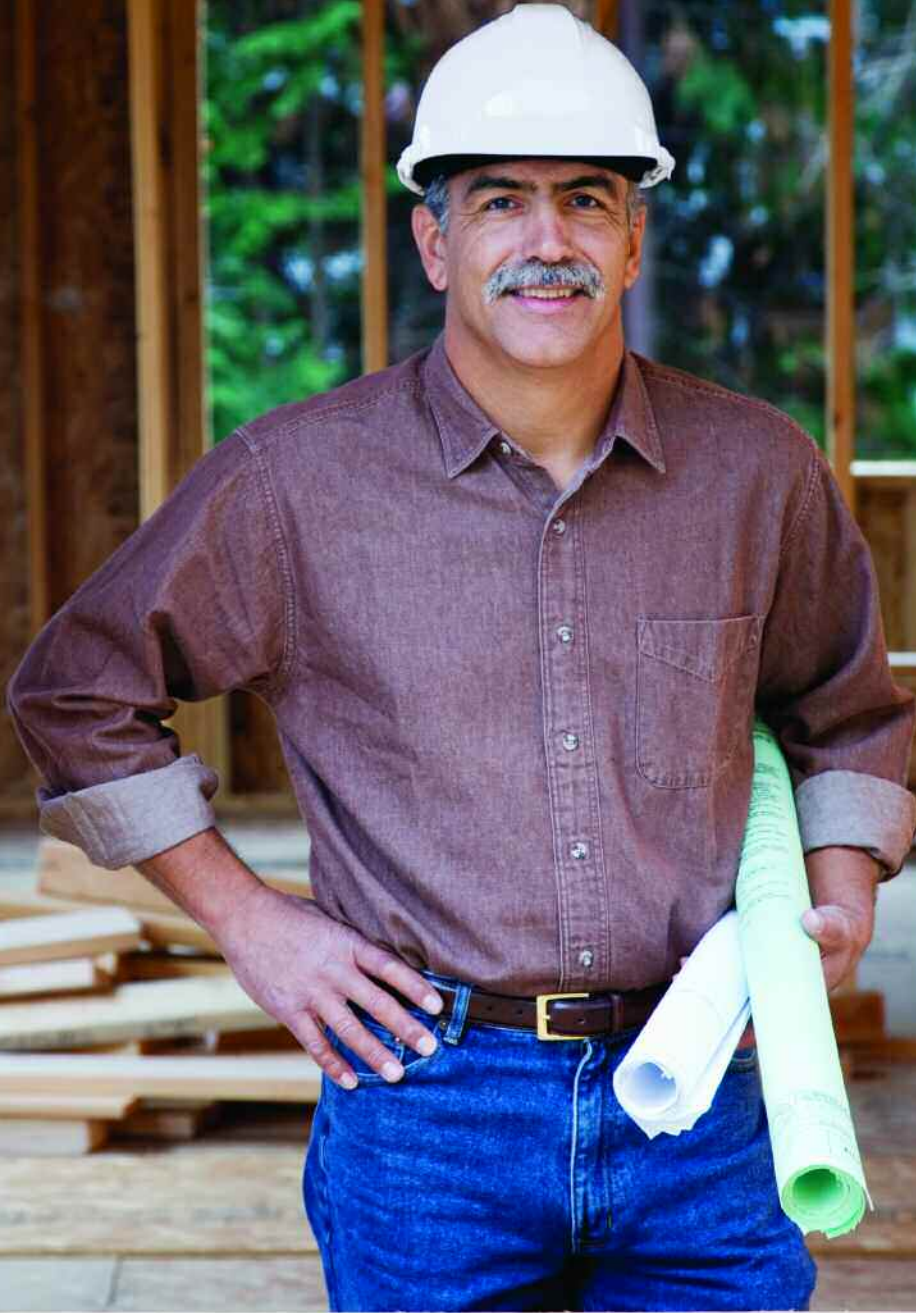


Builders Challenge



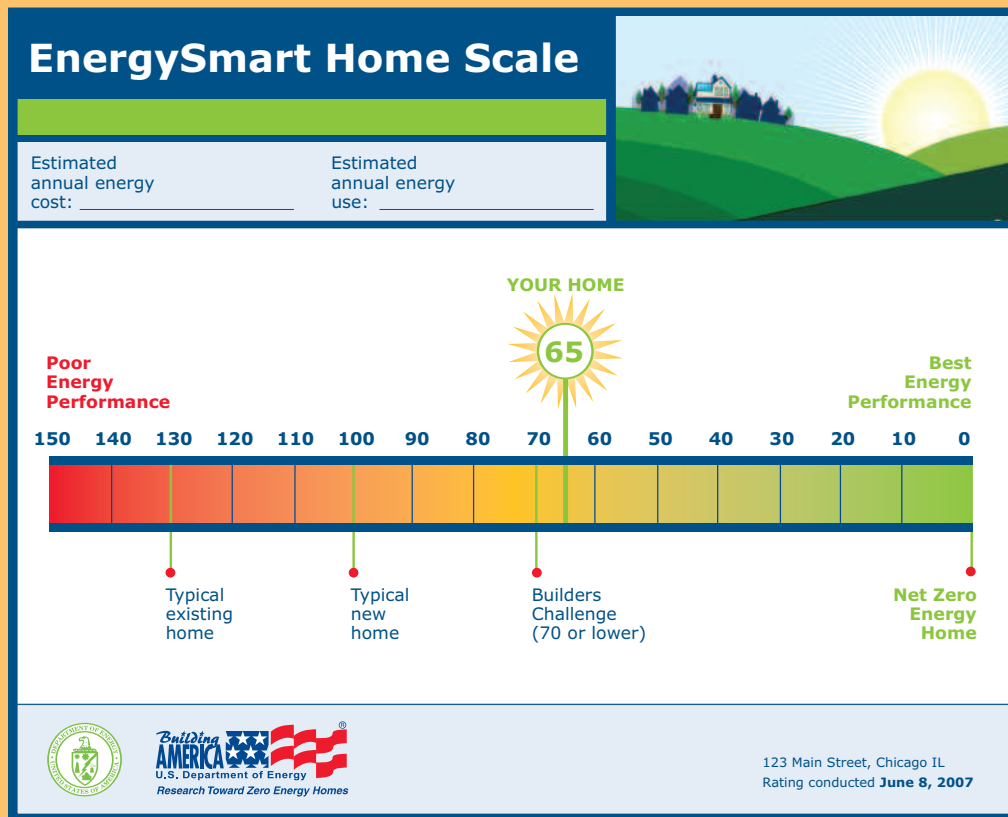
Recognizing energy leadership
in homebuilding



U.S. Department of Energy
Energy Efficiency and Renewable Energy
Bringing you a prosperous future where energy is clean, abundant, reliable, and affordable



Introducing Homebuyers to the EnergySmart Home Scale



The EnergySmart Home Scale (EHS) is an easy-to-understand metric that will help consumers make smart energy decisions when they purchase a home. It is designed to provide clear, objective answers to basic consumer questions:

- How many “miles per gallon” does this home get?
- How does it compare to a code home?
- How close is it to the “ultimate”—a zero energy home?

An EHS scale will be placed by participants in the Builders Challenge on the power panels of their homes, showing energy performance achieved for each individual home or model.

Participating builders and partner organizations also can:

- Co-brand the EHS label with their logos and program or product names
- Augment the rating with estimates of annual energy dollar savings—which can help homebuyers get better mortgage terms
- Include estimates of carbon dioxide reductions associated with the energy savings.

The EnergySmart Home Scale is based on the well-established (HERS) index, developed by RESNET, the Residential Energy Services Network. The Builders Challenge goal is to see a critical mass of 220,000 highly efficient homes built by 2012. These houses will be 70 or better on the EnergySmart Home Scale—making them at least 30 percent more energy efficient than typical new homes.

How homebuilders, homebuyers, and our nation as a whole will benefit from the Builders Challenge

Q: What is the Builders Challenge?

A: A voluntary public-private effort to spur demand for high performance homes.

U.S. homebuilders of all sizes, from all areas of the country, report growing buyer interest in energy efficient houses. Yet buyers often lack basic information that can help them make informed decisions. How can homebuyers tell exceptional energy performers from average energy performers or code homes? And how do they figure out just what that difference will mean in their energy bills?

Spearheaded by the U.S. Department of Energy (DOE), the Builders Challenge is a voluntary effort to provide compelling answers. The Builders Challenge seeks to **galvanize the housing industry to move 220,000 high performance homes into the marketplace by 2012**, while **spurring strong consumer demand for these homes**. Through the Builders Challenge, participating homebuilders can differentiate their best energy-performing homes from other products in the marketplace. The Challenge highlights homes that achieve 70 or better on the EnergySmart Home Scale (see fold-in page).

DOE's ultimate vision is that, by 2030, a consumer will have the opportunity to buy an affordable net zero energy home (NZEH) anywhere in the United States—a grid-connected home that, over the course of a year, produces as much energy as it uses. The Builders Challenge establishes a framework for continuous improvement that will help propel the market toward zero energy performance.

Eligible Candidates	Pathways to Meeting the Challenge	Design & Performance Analysis	Minimum Required Performance	Verification Process
Any builder of new U.S. housing, including all single-family (attached and detached) and low-rise multi-family (3 stories or less)	Partner Program (e.g., utility programs, green building programs)	Achieve an equivalent level of performance within a partner program	Equivalent performance as defined by the partner program and certified as equivalent by DOE	Partner-specified QA/QC procedure
	Prescriptive	Build to the Builder Challenge-Builder Option Package (BC-BOP) guidelines for the appropriate climate	Meet all BC-BOP criteria for the climate	Third-party verification or company-based QA/QC program
	Performance	Build a high performance house that achieves, at a minimum, the required HERS Index	HERS Index of 70 or better, as determined by modeling software accredited by RESNET accreditation procedures	Third-party verification or company-based QA/QC program

Builders can choose among three pathways for meeting the Builders Challenge, finding the best match for their business.

Q: What will participating builders do when they “join the challenge?”

A: Builders will commit to build high performance homes as part of their business.

When builders agree to “join the Challenge,” they will commit to constructing homes that rate 70 or better on the EnergySmart Home Scale (see fold-in page) and that deliver comfort, quality, durability, and a healthy indoor environment consistent with Building America performance criteria. Builders can choose among three different pathways for meeting the Challenge, as shown in the chart to the left. These processes are based on existing consensus standards and procedures that include verification and quality control.

Interested builders can sign up to “join the challenge” at the Builders Challenge web site. Participating builders are asked to post the EnergySmart Home Scale on the power panel of each qualifying house, and to voluntarily report the number of high performance homes they construct or start by 2012 that meet Challenge criteria.

Q: What resources are available to help builders meet the Challenge?

A: A wealth of technical information is available.

DOE and its partners will offer technical information, resources, and marketing tools to support builders across the nation in meeting the Challenge on their own or through a partner program. The Builders Challenge performance requirements have been defined based on years of research results emerging from DOE’s Building America program. The program has developed detailed documentation on best practices for high performance homebuilding in major U.S. climate zones. These best practice guidelines, along with case studies and other technical information, are available for download. The Builders Challenge web site also will highlight resources for meeting Challenge goals.

In addition, a design competition will make high performance home plans more readily available and annual awards will recognize and reward participation.

Q: How will the Challenge help drive consumer demand?

A: Through education and outreach campaigns—leveraging energy efficiency, utility, manufacturer, and green building programs already in the marketplace.

Homebuyers increasingly rely on energy efficiency and green building programs to help them make smart purchasing decisions. The Builders Challenge will complement and leverage programs that seek to achieve even higher goals—leading the drive toward zero energy performance. For example, the National Association of Home Builders recently introduced its National Green Building Program with its highest tier of performance—emerald—meeting the Builders Challenge level.

Because no single education and outreach effort alone is likely to make the impact needed, DOE will partner with utilities, energy efficiency programs, trade associations, non-governmental organizations, state and local governments, educators, manufacturers, energy professionals, and the media.

Q: Why does the Challenge matter to our nation?

A: Because more efficient homes mean a more energy independent America.

In the United States, buildings use more energy than transportation or industry. So when it comes to America's future energy independence and carbon emissions profile, homes and commercial buildings can have a major impact.

Just consider, about 30 percent of housing stock that will exist in 2030 has not yet been built. Right now, our nation has a real opportunity to influence how the 2030 housing stock will take shape.



Q: What's in it for participating builders?

A: A chance for their homes to truly stand out from the pack.

Meeting the Challenge helps builders to:

- Qualify for incentives such as tax credits and utility benefits
- Differentiate their homes at a higher energy efficiency level than is currently available and help consumers qualify for new mortgage products
- Communicate that high performance means quality, comfort, and a healthy indoor environment.

And, with the DOE name and extensive technical and marketing tools behind them, the Challenge helps builders credibly meet increasing consumer demand for better homes.

The five elements of the Builders Challenge

1. **Volunteering for the Challenge:** inviting American homebuilders to join in the voluntary Builders Challenge and commit to constructing high performance homes
2. **EnergySmart Home Scale:** an index that participating homebuilders will use to provide buyers with an objective rating of a particular house's energy efficiency
3. **National Outreach Campaign:** a public education effort to help drive homebuyer demand for high performance homes and to assist participating builders in their marketing
4. **Design Competition:** recognizing designers and increasing the supply of high-performance home plans that meet Challenge requirements
5. **Awards:** recognizing and rewarding Challenge participants that contribute to a critical mass of high performance home construction

These elements are being implemented through collaborative efforts by the U.S. Department of Energy with states, building industry associations, building trades, colleges and universities, consumer organizations, rating organizations, real estate professionals, utilities, and energy efficiency program sponsors. Most important of all is the voluntary participation of homebuilders across the United States.

Join the Challenge!

DOE invites homebuilders and partner organizations to join in making the Builders Challenge a showcase for energy leadership in American homebuilding—and a turning point in our nation's energy future. For more information, see: www.buildingamerica.gov/challenge.

At the February 2008 launch of the Builders Challenge, these builders and partner organizations pledged their participation. For more information on how your business or organization can join the Challenge, see www.buildingamerica.gov/challenge.

Participating Builders

G.W. Robinson Homes, Gainesville, FL
Pulte Homes, Las Vegas, NV
Stalwart Built Homes, Panama City, FL
Tommy Williams Homes, Alachua, FL
Ferrier Custom Homes, Fort Worth, TX
Marquis Construction, Holiday, FL
On Top of the World Communities, Inc., Ocala, FL
Stitt Energy Systems Inc., Rogers, AR
Castle & Cooke, Florida, LTD, Winter Garden, FL
City of Brownsville, Brownsville, TX
Palm Harbor Homes, Plant City, FL
New Tradition Homes, Vancouver, WA
Martha Rose Homes, Seattle, WA
Spain & Cooper Construction, Gainesville, FL
Pringle Development Retirement Communities, Inc., Eustis, FL
Rural Development, Inc., Turners Falls, MA
Florida Custom Homes, Naples, FL
Organum Development (Lily Valley), Hattiesburg, MS
Harvard Communities, Denver, CO
Chuck Miller Construction, Inc., Hidden Springs, ID
Skobel Development, Inc., Boca Raton, FL

Partner Organizations

Northwest Energy Efficiency Alliance
Energy Trust of Oregon
City of Portland Office of Sustainability
Oregon Department of Energy
Earth Advantage
North American Insulation Manufacturers Association
Cambridge Energy Alliance

Builders Challenge draws on the best practices developed by DOE's Building America R&D program. For more information, see www.buildingamerica.gov.



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