

What Is "Building America"?

The Building America Program (BAP), sponsored by the U.S. Department of Energy, is one of several national efforts to improve the energy performance of new and existing homes. It seeks to accomplish this goal by identifying energy efficient products and practices that can be implemented on a production basis. The ultimate goal of the Building America Program is to achieve net-zero annual energy use in new homes by 2020¹.

How Does Building America Work?

In cooperation with home builders, Building America teams conduct systems engineering research to:

- Design homes on a community scale that can use on average 30% to 90% less energy than comparable homes built to code-minimum standards,
- Integrate, test, and evaluate technologies and construction methods that can be cost-effectively incorporated into the builder's product line,
- Investigate onsite renewable power systems that lead to net-zero energy (ZEH) homes that will ultimately produce as much energy as they use on an annual basis,
- Connect builders and trade contractors with new opportunities to combine higher performance and quality,
- Discover how innovative energy- and material-saving technologies will enhance new home performance and customer satisfaction.

By using a systems engineering approach to home building, Building America unites segments of the building industry that traditionally work independently of one another. It forms teams of architects, engineers, builders, equipment manufacturers, material suppliers, community planners, mortgage lenders, and contractor trades to develop better coordination and communication in the design and construction of new homes.

The research conducted by Building America teams increases the quality and performance of today's homes and provides valuable information for homes of the future. By supporting industry-driven systems engineering research, the Building America Program provides the design and evaluation necessary to develop critical "next generation" building systems. The current Building America goal in a mixed climate like the mid-Atlantic is to achieve 40% energy savings by 2008.

Building America Results:

Over 200 builders have constructed more than 30,000 homes between the 30% and 50% energy savings level.

Is Building America Different From ENERGY STAR®?

DOE's Building America Program is different from EPA's ENERGY STAR Program but the two are mutually supportive. As a Building America Builder Partner, you will receive support in achieving the ENERGY STAR label ... and more.

By working within the Building America Program, a builder can attain levels of energy performance to meet the federal Energy Efficiency Tax Credit. That's not only testimony to the added value of your homes, but it also puts \$2,000 in your pocket. What's more, you can offer your customers a home that will see half (50%) the heating and cooling compared to the equivalent "built-to-code" new home.

What are the Advantages for a Builder Partner?

Building America does not provide direct financial incentives to Builders. However, it does offer a number of advantages in the current new housing market including:

¹ To find out more about Building America, visit www.eere.energy.gov/buildings/building_america.

Building America – Houses That Work

- Design and engineering support to help you achieve the biggest energy efficiency “bang for your buck” and to make sure the house works as a system.
- Assistance with identifying new products and practices that will enhance the energy efficiency, durability, and comfort of your homes yet remain in keeping with your current practice and the demands of your client base.
- Connection with product manufacturers to provide information about new products on the market and design assistance for integrating new products into your current practice.
- Documentation of estimated energy performance by a professional third party.
- Assistance with developing support materials to help sell the added quality of your new high performance homes.
- Connection with other Builder Partners to show what has worked for them in the marketplace.

Why Should I Become a Building America Partner?

In This Tight and Uncertain New Homes Market, I Can't Afford to Try New Things That Will Increase the Cost of My Homes.

Or maybe you can't afford not to.

Home buyers are becoming increasingly savvy about home building. They are familiar with terms like low-e windows, vapor retarders, high efficiency, and sealed combustion heating equipment. With energy prices on the rise, they undoubtedly will be looking for more fuel-efficient homes just as they are beginning to choose more fuel-efficient cars. By participating in the Building America Program, you will be able to offer them a higher quality product than your competition and one that will save them money as long as they live in the home and help to hold its value should they decide to sell the home.

What are the Responsibilities of a Builder Partner?

A Builder Partner's primary “responsibility” is to work in cooperation with the NAHB Research Center to identify practical and realistic improvements to their current construction practice. These improvements will enhance the energy performance of their homes and work towards energy saving goals in the Building America program. Generally, this requires a time commitment to review proposed changes that appear promising based on computer modeling and simulations, a willingness to include these systems on a prototype home in a cost effective manner, and an effort to engage trade contractors in the process to obtain their feedback as well as their support. Other responsibilities include:

- Build to energy savings levels significantly above ENERGY STAR.
- Build a minimum of fifteen homes per year.
- Consider use of solar thermal and photovoltaic systems.
- Work with your marketing firm to develop advertising around the energy efficiency and renewable energy features of the home(s).
- Assist with tracking construction costs for the new features.
- Allow energy monitoring of the home for at least one year.

What are the Responsibilities of the NAHB Research Center?

The NAHB Research Center will provide engineering design and support services throughout the project. This includes energy modeling to estimate expected performance of the home, cost analyses to determine economic benefits, and diagnostic testing to verify performance during as well as after construction is complete. The NAHB Research Center will also install monitoring equipment and prepare data analysis to document the performance of the prototype home and publish project results. In addition, NAHBRC may assist the Builder Partner with some of the following:

- Coordination of participation of product manufacturers.
- Documentation of construction process.
- Provide information for training and educational materials.
- Development of local/national publicity about the prototype home, the Builder's participation in the Building America Program, and the benefits of high performance home building.

Whom to Contact

For more information, please contact Margo Thompson at the NAHB Research Center by phone at 1-800-638-8556 x6308 or email at mthompson@nahbrc.org.

