

## **Building America Update – September 10, 2013**



This announcement brings you the latest information about news, activities, and publications from the U.S. Department of Energy's (DOE) [Building America](#) program. Please forward this message to colleagues who may be interested in [subscribing](#) to future *Building America Update* newsletters.

### **Spotlight on 2013 Technical Update Meeting**

See the August issue of [Green Builder](#) magazine for the article, "Taking Control"—a recap of the Spring 2013 Building America Technical Update meeting, which brought together some of the world's foremost building scientists to discuss the latest research on building and remodeling challenges facing the industry today. The article outlines Building America recommendations for high impact issues such as: insulation challenges, optimal strategies of multifamily buildings, electric heating options, off-the-shelf HVAC, duct design and integration, single-family home ventilation, and more. Access the full [presentations and webinar recordings](#) on the Building America website.

### **Submit Comments on the Green MLS Implementation Guide by September 13, 2013**

Building America supports efforts to create the infrastructure for recognizing the value of high performance homes when they are sold, appraised, underwritten, or insured, so that upgrades are given their fair value in the marketplace. [CNT Energy](#), a Building America partner, is managing the [public comment](#) process of the [Green MLS Implementation Guide v.1.0](#), to be published by the National Association of REALTORS Green Resource Council in October 2013; please submit comments by **5:00 PM CDT on September 13, 2013**. The Green MLS Implementation Guide is part of the Green MLS Toolkit project, an industry collaborative effort. Building America encourages industry's feedback to this important guide.

### **Building America Track and Building Science Education Meeting at EEBA Conference**

Don't miss the Building America sessions at the Energy & Environmental Building Alliance (EEBA) [Excellence in Building Conference](#) on September 24-26, 2013, in Phoenix, Arizona! The Building America track, [Zero Net-Energy Ready Homes with Building America Innovations](#), includes a two-day agenda of topics. Also, Building America is hosting a **Building Science Education Task Force Working Group** Meeting on September 24, from 1:00-4:30 PM in the Courtyard O/P meeting room. Led by DOE and the [NorthernSTAR](#) Building America team, this task force will focus on developing an effective infrastructure to deliver building science education to the market. Interested in participating? Please RSVP to [Heather Stafford](#) by September 16.

### **DOE Challenge Home Housing Innovation Awards – October 4, 2013**

Since new specifications were introduced this past January, the DOE [Challenge Home](#) has grown to include more than 320 partners and over 100 certified zero net-energy ready homes. Nearly half of the partners are third-party verifiers available to certify homes and the other half are builders committed to constructing DOE Challenge Homes that [work better, live better and last better](#). Another 30 training partners are helping to deliver Zero Net-Energy Ready [trainings](#) across the country

Many of these extraordinary builders will be honored at the [Housing Innovation Awards](#), presented on Friday, October 4, 2013, as part of the [U.S. Department of Energy Solar Decathlon 2013](#)—an award-winning competition that showcases the world's leading colleges and universities designing the most energy-efficient homes ever built. Awards will be given to Challenge Home Builders, Home Performance with Energy Star Contractors, and Building America [Top Innovations](#). [Learn more and RSVP](#).

## **Volunteer for the 2013 Solar Decathlon!**

The U.S. Department of Energy [Solar Decathlon 2013](#) will take place on October 3-13, 2013, at the Orange County Great Park in Irvine, California. This free public event features two complementary attractions: the Solar Decathlon, where visitors can tour highly efficient, solar-powered competition houses, and the XPO, featuring visionary and innovative clean energy companies, products, and educational opportunities. Volunteers are an important part of this exciting event. As a volunteer, you'll work alongside Solar Decathlon organizers, serving as greeters, docents, runners, registration assistants, visitor liaisons, and more. To find out more about volunteering, visit the Solar Decathlon [Volunteer](#) website.

## **Calling All Students for the Challenge Home Design Competition!**

DOE is launching a new nationwide competition that aims to provide the next generation of architects, engineers, construction managers, and entrepreneurs with skills and experience to start careers in the field of high-performance homes. Applications are currently being accepted for the [DOE Challenge Home Student Design Competition](#), which seeks college student team innovations for homes that can serve as "models for success" by the home building industry. Submissions will demonstrate the teams' knowledge and skills to design, analyze, and plan the construction of quality homes that meet or exceed the DOE Challenge Home requirements. [Learn more](#) about the competition, criteria, and deadlines.

## **New Publications from Building America**

The Building America [Publications Library](#) offers an extensive collection of technical reports, measure and strategy guidelines, case studies, and other resources to help you boost energy efficiency in new and existing homes. In addition, the Building America [Solution Center](#) links you to fast, free, and expert building science and energy efficiency information based on [Building America](#) research results. Here is a sampling of some of our most recent publications:

### [Measure Guideline: Buried and Encapsulated Ducts](#)

Buried and/or encapsulated ducts (BEDs) are a class of advanced, energy-efficiency strategies intended to address the significant ductwork thermal losses associated with ducts installed in unconditioned attics. BEDs are ducts installed in unconditioned attics that are covered in loose-fill insulation and/or encapsulated in closed cell polyurethane spray foam insulation. This Measure Guideline covers the technical aspects of BEDs as well as the advantages, disadvantages, and risks of BEDs compared to other alternative strategies. This guideline also provides detailed guidance on installation of BEDs strategies in new and existing homes through step-by-step installation procedures.

### [Strategy Guideline: Application of a Construction Quality Process to Existing Home Retrofits](#)

The Partnership for Home Innovation developed a construction quality process for new and existing high performance homes in which high performance goals are established, specifications to meet those goals are defined, and construction monitoring points are added to the construction schedule so that critical energy efficiency details are systematically reviewed, documented, and tested in a timely manner. This report follows the evolution of the construction quality process from its development for new homes, to its application in the construction of a high performance home with enhanced specifications, and its application in a crawlspace renovation.

### [Retrofit of a Multifamily Mass Masonry Building in New England](#)

Merrimack Valley Habitat for Humanity has partnered with Building Science Corporation to provide high performance affordable housing for 10 families in the retrofit of an existing brick building (a former convent) into condominiums. The research performed for this project provides information regarding cost-effective, advanced retrofit packages for multi-family masonry buildings in cold climates, and demonstrates safe, durable, and cost-effective solutions that will potentially benefit millions of multi-family brick buildings throughout the East Coast and Midwest

### [The Performance House - A Cold Climate Challenge Home](#)

Working with builder partners on test homes allows for vetting of whole-house building strategies to eliminate any potential unintended consequences prior to implementing these solution packages on a production scale. To support this research, the CARB team partnered with Preferred Builders Inc. on a 2,700 ft<sup>2</sup> “Performance House” in Old Greenwich, CT, with a focus on simplicity in construction, maintenance, and operation. The end result was a DOE Challenge Home that achieved a HERS Index Score of 20 (43 without PV, the minimum target was 55 for compliance). This home was also awarded the 2012 HOBI for Best Green Energy Efficient Home from the Home Builders & Remodelers Association of Connecticut. View the [YouTube video](#) on this project.

Additional reports published recently are:

- [Fort Devens: Cold Climate, Energy-Efficient, Market-Rate Townhomes](#)
- [Field Performance of Heat Pump Water Heaters in the Northeast](#)
- [Occupant-in-Place Energy Efficiency Retrofit in a Group Home for 30% Energy Savings in Climate Zone 4](#)
- [Bay Ridge Gardens - Mixed-Humid Affordable Multifamily Housing Deep Energy Retrofit](#)
- [Evaluation of Two CEDA Weatherization Pilot Implementations of an Exterior Insulation and Over-Clad Retrofit Strategy for Residential Masonry Buildings in Chicago](#)
- [Long-Term Results from Evaluation of Advanced New Construction Packages in Test Homes: Lake Elsinore, California](#)
- [Improving Gas Furnace Performance: A Field and Laboratory Study at End of Life](#)

Visit the Building America [Publications Library](#) to access the entire catalog of publications to help improve efficiency of new and existing homes.

Want to learn more about Building America or help us spread the word about the program? View the new video, [“What is Building America?”](#) on DOE’s YouTube channel to learn about how Building America aims to bridge the gap between homes with high energy costs and homes that are healthy, durable, and energy efficient.

***Please forward this announcement to colleagues who may be interested in subscribing to future Building America Updates.***