

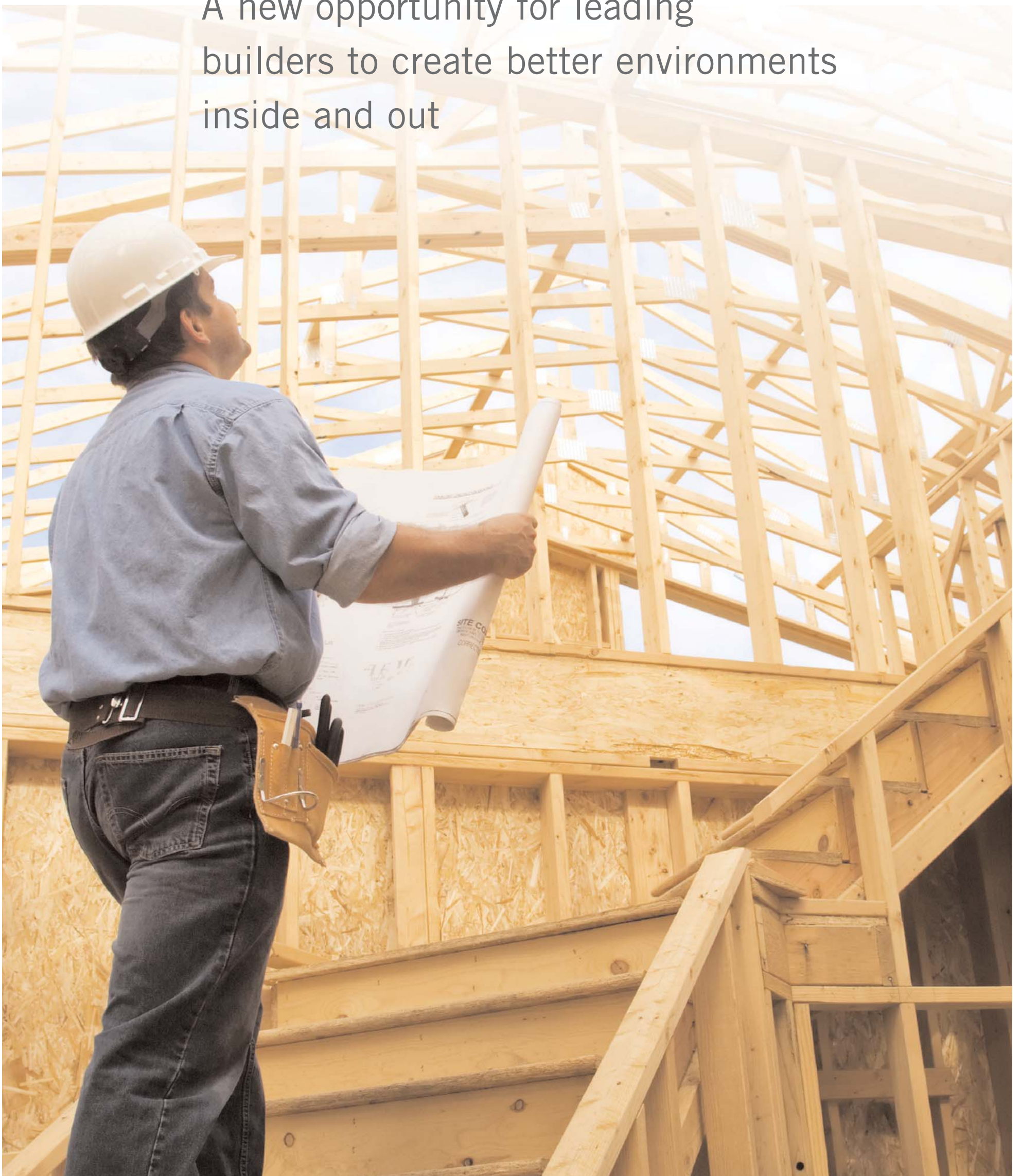


# Step up to Indoor airPLUS

ask about



A new opportunity for leading  
builders to create better environments  
inside and out



All Indoor airPLUS qualified homes also meet strict guidelines for energy efficiency set by ENERGY STAR, the nationally-recognized symbol for energy efficiency.



ENERGY STAR

# Why does indoor air quality matter?

People are increasingly concerned about mold, radon, carbon monoxide, and toxic chemicals commonly found in homes. In fact, U.S. Environmental Protection Agency (EPA) studies show that levels of air pollution inside the home are often two to five times higher than outdoor levels. And poor indoor air quality is associated with a host of health problems, including eye irritation, allergies, headaches, and respiratory problems such as asthma.

In addition, indoor air quality is having a sizable financial impact on the home building industry. Litigation associated with mold and other indoor air quality related concerns and the rising cost of liability coverage have cost builders across the country billions of dollars.

## Why design and build with Indoor airPLUS?



Builders can employ a variety of construction practices and technologies to decrease the risk of poor indoor air quality in their new homes. According to surveys, consumers are willing to pay up to \$5,000 more for these improvements.

EPA created Indoor airPLUS to help builders meet the growing consumer preference for homes with improved indoor air quality. By constructing homes that meet EPA's stringent specifications, forward-thinking builders can distinguish themselves by being among the first to offer homes designed to deliver improved indoor air quality.\*

*\*Indoor airPLUS construction specifications are designed to help improve indoor air quality (IAQ) in new homes compared with homes built to minimum code. However, these features alone cannot prevent all IAQ problems. Occupant behavior is also important for IAQ. For example, products used in the home after occupancy and smoking inside may both negatively impact the home's IAQ and the performance of the specified Indoor airPLUS features.*



# How do homes earn the Indoor airPLUS label?

## **Start with ENERGY STAR**

A home must first be designed and built to earn the ENERGY STAR—the government-backed symbol for energy efficiency. The result is a home that is significantly more energy efficient than a home built to minimum code, helping reduce greenhouse gas emissions.

## **Add indoor air improvements**

More than 30 additional home design and construction features are included in the Indoor airPLUS label to help protect qualified homes from moisture

and mold, pests, combustion gases, and other airborne pollutants. Some builders already include many of these features in their homes.

## **Complete the package with independent testing and verification**

The home's energy performance and key features of the Indoor airPLUS label are inspected by an independent third-party to ensure compliance with EPA's rigorous guidelines and specifications.

# What distinguishes new homes with Indoor airPLUS?

With Indoor airPlus, EPA is challenging builders to step up to a new level of excellence by building homes with professional best practices, including the following design and construction features:

**Moisture Control:** Build in added protection from mold and other moisture problems with water managed roofs, walls, and foundations. Features include continuous drainage planes, proper flashing and air sealing, damp-proof foundation walls, capillary breaks, drain tile, and proper grading.

**Radon Control:** Provide radon-resistant construction in high radon potential areas, including gravel and plastic sheeting below slabs, fully sealed and caulked foundation penetrations, plastic vent pipe running from below slab through the roof, and an attic receptacle for easily adding an electric powered fan to the vent pipe if needed.

**Pest Management:** Provide a first-line defense against pest problems by fully sealing, caulking, or screening likely pest entry points. When these physical barriers are combined with proper pest management techniques, pesticide use may be reduced.

**Heating, Ventilating, and Air-Conditioning (HVAC):** Improve indoor air quality with best practice design and installation of ducts and equipment to minimize condensation problems, whole-house and spot ventilation to help dilute and exhaust indoor pollutants, and air filtration to remove airborne particulates.

**Combustion Venting:** Protect residents from potential exposure to combustion gases by installing direct-vented or power-vented gas- and oil-fired equipment, properly vented fireplaces, garages fully sealed from living spaces and equipped with an exhaust fan, and carbon monoxide alarms in each sleeping area.

**Building Materials:** Reduce sources of pollutants by selecting and installing materials to minimize risk of moisture damage, specifying materials with reduced chemical content, and ventilating homes prior to occupancy.



**Quality Assurance and Homeowner Education:** Help ensure that homes operate as designed by inspecting air-handling equipment and ductwork to be sure they are clean and free of debris and provide adequate air-flow,

verifying that all necessary testing has been performed, providing radon test kits for homes located in high-risk radon areas, and providing information to educate owners about their new home's indoor air quality features.

# Are you ready to step up to Indoor airPLUS?

## **1. Work with a Home Energy Rater**

Work with a local Home Energy Rater—the same people who help you with ENERGY STAR—to ensure that your homes are designed and built to meet Indoor airPLUS construction specifications.

## **2. Partner with EPA**

Sign up at [www.epa.gov/indoorairplus](http://www.epa.gov/indoorairplus). Just fill in the Indoor airPLUS partnership agreement, a simple online form that explains requirements for use of the Indoor airPLUS name and mark.

## **3. Verify and Label Homes**

Have your homes inspected by your Home Energy Rater. Indoor airPLUS inspections can be completed along with ENERGY STAR inspection and testing. Sign the verification checklist and affix the Indoor airPLUS label on each qualifying home, right next to the ENERGY STAR label.

## **4. Promote your Competitive Advantage**

Use Indoor airPLUS promotional materials and resources to gain market advantage for your qualified homes.

# What is ENERGY STAR?

ENERGY STAR is the government-backed symbol for energy efficiency. The mark identifies new homes, buildings, and more than 50 types of products that are energy efficient and offer the features, quality, and performance today's consumers expect.

Homes that earn the ENERGY STAR are significantly more energy efficient than standard homes. By purchasing an ENERGY STAR qualified home, your customers can have all the features they desire in their new homes, plus better performance and lower utility bills—all while helping reduce greenhouse gas emissions.

ENERGY STAR was introduced by EPA in 1992 as a voluntary partnership to reduce greenhouse gas emissions through increased energy efficiency. Today, ENERGY STAR offers consumers and businesses energy-efficient solutions to save energy, save money, and help protect the environment for future generations.



Only ENERGY STAR qualified homes are eligible to earn the Indoor airPLUS label.

ENERGY STAR qualified homes are at least 15% more energy efficient than homes built to the 2004 International Residential Code (IRC) and include additional energy-saving features that typically make them 20-30% more efficient than standard homes.



[www.epa.gov/indoorairplus](http://www.epa.gov/indoorairplus)



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