

Energy Star presents new version

Homes 3.0 requires even more energy efficiency from builders

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Living Green



April is an important month this year for the Energy Star for Homes Program. After qualifying more than a million new homes nationwide to the Energy Star standard, this program is determined to step it up a notch.

Energy Star for Homes is a voluntary program administered by the U.S. Environmental Protection Agency. Energy Star requires participating homebuilders to construct above-code homes that incorporate industry-best practices to ensure better comfort and energy efficiency.

Energy Star has been so successful in educating builders and homebuyers about these better ways to build homes that many of the ideas and strategies are now being incorporated in the residential building code. The 2009 Energy Code already adopted by the state of New Mexico and, pending implementation in Las Cruces, includes requirements for thermal bypass (heat loss or gain) reduction at insulated walls, ceilings and floors and testing of duct work to minimize conditioned air loss. Each of these measures was introduced to residential construction through Energy Star for Homes.

Over time, as mandated code requirements have become more rigorous and builder standard practices have become more efficient, EPA has periodically modified the Energy Star guidelines for new homes to ensure homes earning the label continue to represent a meaningful improvement over non-labeled homes. Energy Star for Homes 3.0 represents the next major step in the evolution of affordable, durable, comfortable and energy-efficient homes.

The first big change for Energy Star 3.0 is better efficiency. Homes permitted before April 1 required a Home Energy Rating (HER) index of 85 or less. Energy Star homes permitted after the first of this month will require HER index scores that are even lower. Ratings are now calculated on a scaled format and, for the most part, in Doña Ana County will need a HER index of 65 to 75 to qualify.

Size does matter. Bigger homes use more energy compared to similarly equipped smaller homes. New larger homes (more than 2,200 square feet) with only two or three bedrooms need to be significantly more efficient to become Energy Star certified.

Heating and cooling contractors, always key to home comfort and efficiency, will now play a larger role in Energy Star for homes certification under version 3.0. Energy Star approved HVAC contractors will correctly size equipment,

Permit Date ²	Date of Final Inspection ¹			
	1/1/2011	4/1/2011	7/1/2011	1/1/2012
Before 4/1/2011 ⁶	V2 Single Family Homes ^{3, 5}		V2.5	V3
	V2 Condos and Apts in Multi-Family Buildings ^{4, 5}			V3
Between 4/1/2011 and 12/31/2011			V2.5 All Homes	V3
On or After 1/1/2012 ⁷				V3 All Homes
Version 2	Version 2: 2006 Guidelines			
Version 2.5	Version 2.5: Version 3 ENERGY STAR Reference Design with Air Barriers and Air Sealing sections of Thermal Enclosure Checklist. Other checklists completed but not enforced			
Version 3	Version 3: Version 3 ENERGY STAR Reference Design with all checklists			

This schedule shows when Energy Star will begin to implement their Home 3.0 standards.

complete an engineered duct-layout design for each individual home plan and conduct a detailed commissioning or start up process for every heating and air conditioning system installed in version 3.0 homes.

Controlling infiltration of air in and out of the conditioned space of the home and correctly installing insulation at the home envelope are critical. Additional thermal bypass control measures have been added to the required list of practices required in Energy Star-labeled homes.

The final big change to Energy Star 3.0 is enhanced structural durability through moisture management. Even in our Chihuahuan Desert climate water damage to wood framed wall and roof structures is common. Plumbing leaks or high humidity levels can jeopardize our health indoors. The moisture management requirements of Energy Star 3.0 provide builders guidance and industry-best practice details to limit the risk of moisture caused structural damage and homeowner/occupant respiratory health issues.

Homebuilders who participate in the Energy Star program recognize the advantages that an Energy Star-certified home provides. No one is making them build their homes better – they simply realize it is the right thing to do. We have dozens of Energy Star builders in the Las Cruces area, be sure to talk to one before you build or buy a new home.

To find local Energy Star builders or to learn more about Energy Star 3.0 for Homes, visit www.energystar.gov and click on the link.

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