

# EPA - Energy Star for homes

## Energy Star is the granddaddy of green building programs

### MILES DYSON

#### *Living Green*

In the early 1990s, the U.S. Environmental Protection Agency (EPA) rolled out the Energy Star program to help consumers identify appliances and computer equipment that were more energy efficient than others in the market place. The blue Energy Star logo quickly became the most recognized symbol for energy-conscious consumers in their daily purchase decisions, and in 1996, the EPA extended the designation to new homes.

Although most of us have seen the Energy Star designation applied to homes and lots of folks live in Energy Star homes (hundreds of these homes have been built and sold in the last two decades in the Las Cruces area), you may be hard pressed to explain what makes a home Energy Star Certified.

### Good Building Science

The developers of the Energy Star for homes program took a comprehensive look at existing building science research and determined key strategies that would improve efficiency, comfort and durability in residential construction. The goal was to make these “best practices” available in a format that could be readily adopted by the residential homebuilding industry and implemented with minimal construction cost increases.

The program’s format and guidelines have been embraced in the residential green building community. According to EPA documents, 6,500 registered builders have completed almost 1 million Energy Star certified homes nationwide. Energy Star for Homes is currently the foundation for most state and local energy efficiency and green build programs, including Build Green New Mexico, the National Association of Home Builders ICC 700-2008 Green Building Standard and the U.S. Green Build Council’s Leadership in Energy and Environmental Design for Homes program.

In New Mexico, qualifying homes for these advanced Energy Star prerequisite programs can lead to significant residential energy efficiency tax credits – \$2,000 from the U.S.

Internal Revenue Service and state tax credits of up to \$22,450 (depending on square footage and program certification level).

Energy Star certified homes typically use 20 to 30 percent less energy than homes just meeting standard residential code requirements. That utility savings translates directly to dollars saved each month on utility bills and increased savings as utility costs go up.

### How Energy Star Builders make it happen

Insulation installed in walls, ceilings and foundations are a requirement in every new home. Energy Star Builders recognize every insulation installation is not created equal and that every form of insulation performs best when movement of air through the insulation is limited.

Energy Star Builders reduce “thermal bypass” of insulation in homes by ensuring insulation is encapsulated by an air barrier at every exterior wall and ceiling. Most new and existing non-Energy Star homes will have problems with thermal bypass at wall areas behind bath tubs and showers (does your hot water get cold really fast in your jet tub?), at skylights, behind fireplaces, above dropped ceilings, at wall switch plates, receptacles and light fixtures (especially can lights) and at stair wells and garage ceilings in two-story homes. Whole-house infiltration (blower door) testing is conducted by a Home Energy Rater (HERS) on every Energy Star home to make sure the home meets requirements on air infiltration and thermal bypass.

Ducts (not the quacking kind) move expensive heated and cooled air to all the rooms in your home from the air conditioner and furnace. When duct work leaks, we heat and cool Mother Nature as much as our home. Energy Star Builders take measures to seal duct work (often installing the duct work within the conditioned living space of the

home) and follow up with more HERS rater “duct blaster” testing to make sure duct tightness limits are met.

Right-sized air conditioning takes advantage of the improved efficiency built in to the walls, ceiling and duct work. Energy Star Builders use heating and air-conditioning engineering calculations to properly match the size and type of air conditioning system to the design of the home. This means smaller and more efficient air-conditioning equipment can be used to maintain comfort in every season. The right-sized air conditioning units run longer, more efficient cycles and limit harsh starts and stops that shorten the useful life of the equipment.

Windows, lights and appliances earning the Energy Star seal are often installed by Energy Star Builders.

Energy Star windows use advanced low-emissivity coatings and improved thermal design and limit energy loss or gain. Refrigerators, dishwashers, washing machines and light fixtures are the most used appliances in the home and the Energy Star rated units are the industry’s most efficient.

### **Understanding the process**

Energy Star Builders are the market leaders and are serious about providing comfortable and efficient homes to their customers. Qualification for each Energy Star home begins before construction.

Energy Star Builders work closely with certified Home Energy Raters who provide third-party verification and on-site testing to ensure the homes meet Energy Star for Homes program requirements and meet the rigorous efficiency standards set by the EPA.

Now that you know more about Energy Star for homes, make these standards a requirement when you are shopping for or building a home. Unlike the extra hallway niche or that imported bathroom tile, an Energy Star certification rewards you each time you pay your utility bill.

We have a great community of Energy Star Builders in the Las Cruces area as well as an available inventory of Energy Star certified new and existing homes.

Talk to your builder or Realtor today about Energy Star and take advantage of the “Granddaddy of Green.”

*Miles Dyson is the owner of Inspection Connection LC - Professional Home Energy Rating and Home Inspection Services in Mesilla Park and can be reached at 202-2457. Dyson is a RESNET certified Home Energy Rater and ASHI certified Home Inspector.*

**... an Energy Star certification rewards you each time you pay your utility bill.**