



ENERGY STAR Qualified Homes

HUD ONAP Greener Homes National Training

September 28, 2011



Learn more at energystar.gov



An ENERGY STAR Home



Brand Advantage



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Brand Shorthand:

- **Energy Efficient**
- **Gov't-backed**
- **Environmental Leadership**



Why Choose ENERGY STAR?

- Qualify for local incentives or rebates
- Reduced utility and maintenance bills
- Higher property values
- Reduced air pollution / improved environment and human health
- First step to achieving green certifications
- 3rd party verification = quality assurance

ENERGY STAR Qualified Homes



- Homes that are independently verified and labeled to meet stringent energy efficiency guidelines established by the U.S. EPA
- Includes single-family and low-rise multifamily (3 stories or less but can be 4-5 stories)
- ENERGY STAR label recognized by 75% of consumers
- Over 25% of new homes in 2010 earned the ENERGY STAR
- Over 1.2 million ENERGY STAR homes built to date

The ENERGY STAR Label



Labeling Requirement

- Every ENERGY STAR qualified home must receive the blue ENERGY STAR label.
- Builder partners ensure that an ENERGY STAR label is affixed to the circuit breaker box (or other suitable location) on all qualified homes.
- This is the 'proof' that the home has earned the ENERGY STAR.

| | |
|--|-------------------------------|
|  ENERGY STAR | QUALIFIED NEW HOME |
| Address: | |
| 9722 Main Street Green Springs, CO 80935 | |
| Built by: | |
| Smaller Homes | |
| Verified by: | |
| Energy Wise, LLC | |
| Date: | |
| May 3, 2006 | |
| ENERGY STAR for Homes Version Number: | |
| V2.5 | |
| Optional information: | |
| HERS INDEX - 80 | |
| This home has been independently verified to meet EPA's strict guidelines for energy efficiency. Learn more at energystar.gov | |

ENERGY STAR Homes:

The Transition to Version 3

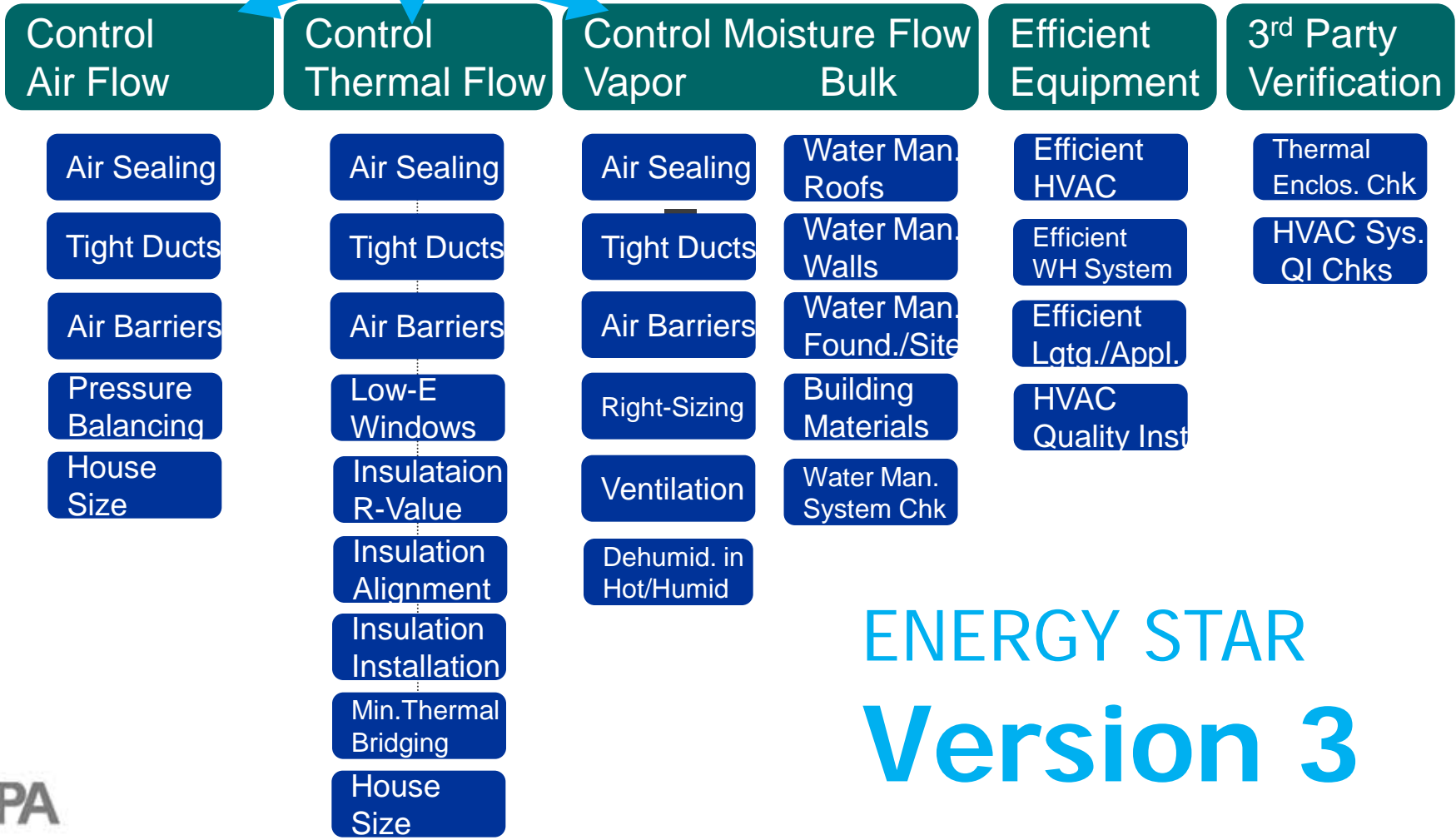


- **Version 2** (For homes permitted before 4/1/11. Home must be completed before 1/1/12)
The V2 requirements include two components:
 - Core energy efficiency measures; and
 - Thermal Bypass Checklist
- **Version 2.5** (For homes permitted 4/1/11 – 12/31/11. Home must be completed before 7/1/12)
 - V2.5 includes the core V3 energy efficiency measures and an expanded set of building science checklists.
 - The checklists must be completed, but failures in some sections will not prevent homes from qualifying under this transitional specification.
- **Version 3** (For homes permitted 1/1/12 and after)
 - Version 3 includes the core V3 energy efficiency measures and requires full compliance with all building science checklists.



Defining Energy Efficient

Affordable
Comfortable
Healthy
Durable



ENERGY STAR Version 3



New Version 3 Requirements



- **ENERGY STAR Reference Design**

- A set of core efficiency requirements for the building envelope, HVAC and water heating equipment, lighting, and appliances.

- **Variable vs. Fixed HERS Score**

- Instead of a fixed HERS Score, a variable HERS Index Target Score is calculated for each home by applying the efficiency requirements of the ENERGY STAR Reference Design

- **Size Adjustment Factor**

- Homes larger than the average size for a specified number of bedrooms (called the 'Benchmark Home Size') must apply a Size Adjustment Factor that will reduce the ENERGY STAR HERS Index Target and increase the home's energy efficiency requirements
- Can take credit for renewable energy systems, but only to help larger homes meet the additional efficiency required by the Size Adjustment Factor.

- **Checklists**

- **Thermal Enclosure Checklist** (completed by Home Energy Rater)
- **HVAC QI Checklist** (completed by Home Energy Rater)
- **HVAC QI Checklist** (completed by HVAC contractor)
- **Water Management Checklist** (completed by builder)

Paths to ENERGY STAR Version 3:



• Prescriptive Path

- The home is designed and built to the set of specifications contained in the ENERGY STAR Reference Design for the climate where the home will be built. No trade-offs are allowed.
- All checklists must be completed and verified
- Only homes the same or smaller than their corresponding Benchmark Home may use this path.

• Performance Path

- A Rater models the home to establish an ENERGY STAR HERS Index Target for the home. For homes larger than their Benchmark Home, this ENERGY STAR HERS Index Target will take into account the Size Adjustment Factor.
- The builder has the flexibility to select a custom set of energy-efficiency measures to earn the ENERGY STAR for the home, so long as the home's HERS Index Target threshold is met or exceeded.
- All checklists must be completed and verified

Qualifying homes under Version 3



1. Check eligibility.
2. Check Benchmark Home Size.
3. Select Version 3 energy efficiency measures.

Prescriptive Path

1. Build the home using the ENERGY STAR Reference Design.
2. Complete the inspection checklists.

Performance Path

1. Model the home and create the ENERGY STAR Reference Home.
2. If the home is larger than the Benchmark Home Size, apply the Size Adjustment Factor to find the ENERGY STAR HERS Index Target.
3. Select upgrades that meet the mandatory requirements and achieve a HERS Index \leq ENERGY STAR HERS Index Target .
4. Complete the inspection checklists.

These steps are new and will be performed by your rater.

These steps are the same as under Version 2.

Version 3 Checklists for Rater



Checklists to completed by your Home Energy Rater:

- **Thermal Enclosure System Rater Checklist**
 - Designed to ensure that the exterior building shell/envelope is optimized for efficiency and durability.
 - This checklist replaces the Thermal Bypass Checklist that was part of the last version of ENERGY STAR for Homes requirements.
- **HVAC Quality Installation Rater Checklist**
 - Used to verify that the home's ductwork and ventilation system have been installed properly.

Version 3 Checklist for HVAC Contractor



Checklist completed by your HVAC Contractor:

- **HVAC Quality Installation Contractor Checklist**

- This checklist ensures that the heating and cooling systems in ENERGY STAR qualified homes are designed and installed according to industry-accepted quality installation practices.
- Only HVAC contractors who have demonstrated the requisite skills and capabilities to perform HVAC Quality Installations will be permitted to complete this checklist.
- To ensure that your HVAC contractor is authorized, you can refer to a list provided on the ENERGY STAR Web site.

Version 3 Checklist for Builder



Checklist completed by the builder:

- **Water Management System Builder Checklist**
 - Requires an inspection of key areas of ENERGY STAR qualified homes to help assure bulk moisture control, including water-managed foundation, walls, roofs; and building materials.
 - Must be completed by the site supervisor or other qualified individual on the builder's staff.
 - Rater may also verify items on the checklist, however, the builder is responsible for accuracy of all checklist requirements.
 - Completed and signed checklist should be provided to the Home Energy Rater to keep with the home's ENERGY STAR file.



New V3 Training Requirements

- **For Raters (and Field Inspectors):**
 - Must complete V3 rater training
 - Offered only by RESNET Accredited Training Providers
 - Each rater working on V3 homes must be trained
- **For Builders:**
 - Must complete online ENERGY STAR orientation training
 - Must complete to become ENERGY STAR Partner
 - One person per builder must complete training
- **For HVAC Contractors:**
 - Must complete V3 training and be credentialed through an EPA-recognized industry organization
 - One person per contractor must complete training



V3 Training Resources for Partners

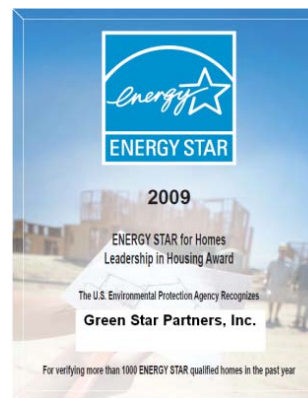
- EPA hosts V3-related webinars and posts recorded presentations on the ENERGY STAR for Homes Website. In addition, EPA holds webinars on key topics such as:
 - Introduction to ENERGY STAR for Builders
 - Marketing and Selling ENERGY STAR Qualified Homes
- Downloadable field guides for all V3 checklists
- V3 policy changes and clarifications
- Slide templates to create customized ENERGY STAR presentations for speaking engagements and training events
 - If you have a speaking engagement and would like help preparing for it, contact the ENERGY STAR for Homes Team at energystarhomes@energystar.gov.



Partner Recognition

- **Leadership in Housing Awards**

- Annual recognition for specific levels of accomplishment
- Sent automatically to Partners, no application required



- **Partner of the Year Awards**

- Recognizes special achievements transforming markets
- Application required
- Excellence in Affordable Housing award
- www.energystar.gov/awards



- **Version 3 Builder Commitment Recognition**

- www.energystar.gov/v3commitment

Become an ENERGY STAR Partner:



- www.energystar.gov/join
 - Select “Residential New Construction”
 - Online application and confirmation email
 - Partners get logo access, free marketing materials
 - Partners are listed on ENERGY STAR web site

For More Information:



www.energystar.gov/homes

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