

	STANDARD OPERATING PROCEDURE BUILDING & SITE DEVELOPMENT	Number: 250.6
Approval: Yves Khawam 		Effective Date: November 30, 2012
Subject: Energy Star alternative compliance		Page 1 of 3

1. PURPOSE:

This document establishes an alternative compliance path for new homes, substituting the Energy Star for Homes certification for code-required verification of thermal envelope, equipment efficiency and testing of infiltration rates and ducts. This option is provided so as to allow home builders to take advantage of cost reductions associated with both subsidies from utilities and minimizing testing requirements through RESNET sampling methodology.

2. REVISION HISTORY:

New standard operating procedure

3. PERSONS AFFECTED:

Building & Site Development staff and public at large

4. ADMINISTRATIVE POLICY:

The Energy Star Label shall be accepted per *International Energy Conservation Code* Section R102.1.1 (*International Residential Code* Section N1101.7) as compliant with applicable energy and mechanical requirements as noted in this document.

5. DEFINITIONS:

Not applicable

6. RESPONSIBILITIES:

Not applicable

7. PROCEDURES:

7.1 Participating single family residences

Applicant shall provide proof of enrollment in the Energy Star for Homes Program at application submittal. Proof shall be in the form of a signed contract



or other legally binding document that includes the specific address (demonstrated participation may not be deferred as the department would otherwise incur significant costs associated with re-reviewing the building plans). Activity description shall be updated to: “SNEW: ENERGY STAR SFR” for projects participating in the energy star program.

P2F permitting condition BC0164 shall be added to the permit stating: “Energy Star approval form shall be emailed to building.safety@pima.gov prior to scheduling final inspection.” The following default items shall be deleted for all participating Energy Star homes:

- P2F condition BC0166 “Air leakage and duct tightness testing results shall be emailed to building.safety@pima.gov prior to final inspection. See guidance documents at www.dsd.pima.gov/building”
- Thermal envelope inspection 150 (insulation, windows and doors)

7.2 Model plans

Model plans submitted for use both within and without the Energy Star program shall contain all required energy required submittal requirements as per standard requirements for new homes. Model plans submitted solely for use within the Energy Star program do not need to include envelope and equipment load descriptions and calculations. However, models submitted solely for use within the Energy Star program shall be noticed as such and shall require revisions requiring full building plan review to be converted for use without the Energy Star program.

7.3 Plan review and inspection process

Plans submitted per Section 7.1 are exempt from plan review and inspection for compliance with Chapter 11 of the *International Residential Code* with the following exceptions:

- N1102.4.2 (R402.4.2) Fireplaces: tight fitting flue and outdoor combustion air
- N1103.2.2.1 (R403.2.2.1) Sealed air handler: documentation showing compliance with less than 2% of design airflow air leakage per ASHRAE 193.
- N1103.3 (R403.3) Mechanical system piping insulation: Mechanical system piping capable of carrying fluids above 105°F (41°C) or below 55°F (13°C) shall be insulated to a minimum of R-3.



- N1103.4.2 (R403.4.2) Hot water pipe insulation: insulation for hot water pipe with a minimum thermal resistance of R-3 shall be per 1102.4.2.1 through .9 and table N1103.4.2.
- N1103.9 (R403.9) Pools and in ground permanently installed spas:
 - N1103.9.1 (R403.9.1) Heaters: readily accessible on-off switch; no constant burning pilot lights.
 - N1103.9.2 (R403.9.2) Time switches: automatically turn off and on heaters and pumps.
- N1104.1 (R404.1) Lighting equipment: a minimum of 75 percent of the lamps in permanently installed lighting fixtures shall be high-efficacy lamps
- N1104.1.1 (R404.1.1) Fuel gas lighting systems shall not have continuously burning pilot lights.

In addition, the follow portions of Chapter 15 are exempt from review and inspection:

- M1507 Mechanical ventilation
- M1601.1 Duct design.

7.4 Testing

The following Prior to Final test results are not required for participating Energy Star homes:

- N1102.4.1.2 (R402.4.1.2) Air leakage testing.
- N1103.2.2 (R403.2.2) Duct tightness testing

7.5 Applicant requests for final inspection without an Energy Star label

Final inspection shall not be released prior to receipt of Energy Star approval form. Should an applicant decide to drop out of the Energy Star program, project plans shall be revised to include all energy related submittals, testing for air leakage and duct tightness shall be provided, and energy-related inspections shall be conducted including destructive verification of building thermal envelop. Applicant shall be charged permitting costs associated with this modification.



ENERGY STAR / Home Energy Rating System (HERS) In Lieu of IECC 2012 Jurisdiction Inspection and Testing Form

- This form provides proof of compliance with certain provisions of the International Residential Code Chapter 11 and Chapter 15.
- This form shall be submitted prior to final inspection.
- Applicant is responsible for engaging a qualified HERS Rater with current certification. Improper certification will result in rejection of this submittal and re-inspection and testing.

The following home has passed all requirements of the:

ENERGY STAR for Homes Version 3 Program or Home Energy Rating System (HERS) and has been certified using a sampling protocol in accordance with Chapter 6 of the RESNET Standards (see www.resnet.us/standards).

Permit Activity Number:		Date:	
Builder Name:		Phone:	
Project Address:			
Project Subdivision:		Lot Number:	
Framing Inspection:	<input type="checkbox"/> Inspected <input type="checkbox"/> Sampled		
Insulation Inspection:	<input type="checkbox"/> Inspected <input type="checkbox"/> Sampled		
Air Leakage Test:	<input type="checkbox"/> Inspected <input type="checkbox"/> Sampled		
Duct Tightness Test:	<input type="checkbox"/> Inspected <input type="checkbox"/> Sampled		
HERS Score:		Duct test performed at:	<input type="checkbox"/> Rough-in <input type="checkbox"/> Final
I (the below named HERS Rater) certify that the above home has passed all requirements of the ENERGY STAR for Homes Version 3 Program or HERS, as indicated above, and has been certified in accordance with Chapter 6 of the RESNET Standards.			
HERS Rater Name:			
RESNET Rater ID Number:		Phone:	
Provider Name:			

This form shall be submitted to the permit issuing jurisdiction

 Pima County	 City of Tucson	 Town of Marana	 Town of Oro Valley	 Town of Sahuarita
Email to: Building.Safety@pima.gov Include Activity Number in subject line.	Email to: PDS-Residential@tucson.az.gov Include Activity Number in subject line.	Email to: bsanchez@marana.com Include Activity Number in subject line.	Email to: cking@orovalley.az.gov Include Activity Number in subject line	Email to: buildapps@sahuaritaaz.gov Include Activity Number in subject line.