



**Home Performance with ENERGY STAR[®] Program Rules for Insulation
For Homes Heated with Natural Gas or Electricity**

These rules are used to determine eligibility for the Assisted Home Performance Subsidy and contractor incentives for homes heated with natural gas or electricity.

Determining & Documenting Pre-Existing Insulation Conditions:

Contractors should refer to the chart titled Effective R-values for Batt Insulation located in the BPI Building Analyst Professional Standard to determine the effective R-value of pre-existing batt insulation in attics and walls. Based on recent Program impact evaluations, the Effective R-value should not be degraded below “Fair”.

Modeling Pre-Existing Insulation Levels in Program Software:

Contractors should indicate insulation levels that most closely represent the effective R-value of pre-existing insulation per BPI, and either the auditor or the software should account for the other components in the assembly (e.g. drywall, sheathing, air film, house wrap).

Insulation Rules Summary:

Insulation measures outside the parameters of the rules below will be loan only and the project must pass loan cost-effectiveness rules.

Installation of insulation must be accompanied with blower door assisted air sealing as per BPI and Program guidelines.

Contractors should not shift costs from insulation to air sealing.

The tables below provide the Maximum Pre-Existing Effective R-value and Post Installation Insulation levels; these numbers include an average of R-2 for typical assembly components:

ATTIC FLAT- OPEN		
Insulation Type	Maximum Existing <u>Effective</u> R-value	Maximum Post Nominal R-value
Fiberglass	R-27 Statewide	R-60 Statewide
Cellulose	R-27 Statewide	R-60 Statewide
Foam	R-22 Statewide	R-49 Statewide

ATTIC SLOPES: OPEN or ENCLOSED Areas Beneath Roof Deck *		
Insulation Type	Maximum Existing <u>Effective</u> R-value	Maximum Post Nominal R-value
Fiberglass	R-7 Statewide	R-30 Statewide
Cellulose	R-7 Statewide	R-30 Statewide
Foam (Closed Cell)	R-7 Statewide	R-30 Statewide

* See Guidance for Attic Slope insulation practices per the HPw ES Technical Bulletin – Dense Packing of Roof Assemblies.

ATTIC FLOOR w/DECKING; OR FLOORS, OVERHANGS and CRAWL SPACES over NON-CONDITIONED SPACE.*		
Insulation Type	Maximum Existing <u>Effective</u> R-value	Maximum Post Nominal R-value
Fiberglass	R-14 Statewide	R-30 Statewide
Cellulose	R-14 Statewide	R-30 Statewide
Foam	R-14 Statewide	R-30 Statewide

* This excludes insulating basement ceilings, where the basement is tied to moderated earth temperatures (i.e. semi-conditioned). Insulation of conditioned floors over garages, ventilated crawlspaces, and floors, overhangs, and cantilevers over non-conditioned space is permitted.

EXTERIOR WALLS including BASEMENT WALLS		
Insulation Type	Maximum Existing <u>Effective</u> R-value	Maximum Post Nominal R-value
Fiberglass	R-9 Statewide	R-18 Statewide
Cellulose	R-9 Statewide	R-18 Statewide
Foam	R-9 Statewide	R-21 Statewide

RIM JOISTS and BAND JOISTS		
These are considered Air Sealing measures however pre and post insulation criteria apply to the insulation types.		
Cellulose	R-7 Statewide	R-30 Statewide
Foam	R-7 Statewide	R-21 Statewide