



ENERGY STAR® Insulation Products: Program Enhancements Part 2 Feb 23, 2011

Doug Anderson, US EPA
Anderson.Doug@epa.gov

Agenda



- Goals of the Call
- Air Sealing Promotional Effort Update
- Background and Update
- Seal and Insulate with ENERGY STAR (ES) Enhancements
- 3rd Party Certification
- Addressing Issues
- Timing and Next Steps
- Questions (written only)

Goals of this Call

- Provide an update on progress
- Explain decisions made and direction so far
- Explain areas of concern
- Explain next steps

To be clear...

- ES is proposing to change the eligibility and participation requirements for all insulation manufacturers.
- These are proposals and ES seeks comments from industry and interested parties.

Air Sealing Products: Update



- Air Sealing products are not a labeled product and are not included in this insulation revision process
- Limited use of S&I graphic allowed to promote air sealing
- Air sealing products have included: elastomeric caulk, spray foam in-a-can (OCF), weather stripping, attic hatch and fan covers, house wrap, sealing tapes, sill sealers
- EPA Webinar was held Oct 21, 2010
 - New logo use agreement being reviewed and approved
 - Limited use will be required (retail signs, web, and instructions)
 - Guidance and examples being developed
 - New requirements to go into effect in Spring 2011
 - Stakeholders will be sent information when agreement is ready
 - Follow developments at web site:
http://www.energystar.gov/index.cfm?c=revisions.insulation_spec

Seal and Insulate with ENERGY STAR

Differences from other ES Products



Insulation has unique properties:

- Product is hidden in attic, walls, or floors and performance is highly installation dependant.
- Wide variety of applications (type of house, location in house, appropriate for climate, other attributes).
- Most product differentiation can be overcome with more insulation or other prep work (air sealing).
- Builders, contractors, and homeowners want choices.

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Activities since July 22, 2010 webinar



- Collected and responded to comments (on-line)
- Developed new Partnership Agreement and Eligibility Criteria
- Researched issues with technical experts on radiant barriers, reflective insulation, SIPs, and ICFs
- Identified potential Certification Bodies (CB)
- Reviewed and modified existing Certification Body (CB), Accreditation Bodies, and Lab Requirements

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Response to Comments: Highlights



- Minimum R-value set at R-3.0 instead of the proposed R-5
 - No label on products with R-values under R-3.0
 - Will not apply to blown or sprayed insulations
- Privately labeled products will have to meet all the same requirements. Manufacturers can arrange “duplicate” certifications with CBs for private labeled products
- Spray foam products will be required to have more safety information (essentially on-site manufacturing)
- Radiant Barriers are still being discussed
- Reflective Insulation may be labeled for certain systems with clearly defined air spaces

Eligibility Requirements

Insulation Products



To be eligible, the “Insulation Product” must:

- Meet the FTC 16 CFR Part 460 definition of “Home Insulation”
- Designed and marketed to insulate a whole wall, ceiling, or floor system for residential applications
- Manufactured, marketed and sold primarily as a product used to resist heat flow in to or out of a residential structure (i.e. across a thermal boundary)
- Marketed and sold in the U.S.A.
- Test for R-value according to testing procedures from FTC 16 CFR Part 460
- Test for IRC Flame & Smoke Spread Dev. requirements

Eligibility Requirements

Insulation Products



Continued....

- Meet the FTC's 16 CFR Part 260 "Guides for the Use of Environmental Marketing Claims"
- Meet the FTC's 16 CFR Part 460.19 "Labeling and Advertising of Home Insulation: Savings Claims"
- Have test results 3rd Party Certified by EPA Approved CB
 - Product lines may be grouped in a single report
 - Reports will have installation instructions and a diagram
- Documentation not less than 3 yrs old to meet current codes
- R-value of 3.0 or greater

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Eligible Products



- Mass Insulation
 - Blanket Insulation (Mineral fiber, typically of rock, slag, or glass, and natural fibers such as cotton, wool, etc.)
 - Spray or Pour Foam Insulation (Polyurethane, polyisocyanurate, foamed cementitious insulation, etc.)
 - Loose Fill Insulation (Fiber glass, cellulose, cotton, wool, etc.)
 - Rigid Board Insulation (polystyrene (EPS), extruded polystyrene (XPS), polyurethane, etc.)
- Reflective Insulation (single sheet, multiple sheet)
- Mass Insulation with Reflective Facing
- Foam portion of ICF assembly

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Ineligible Products



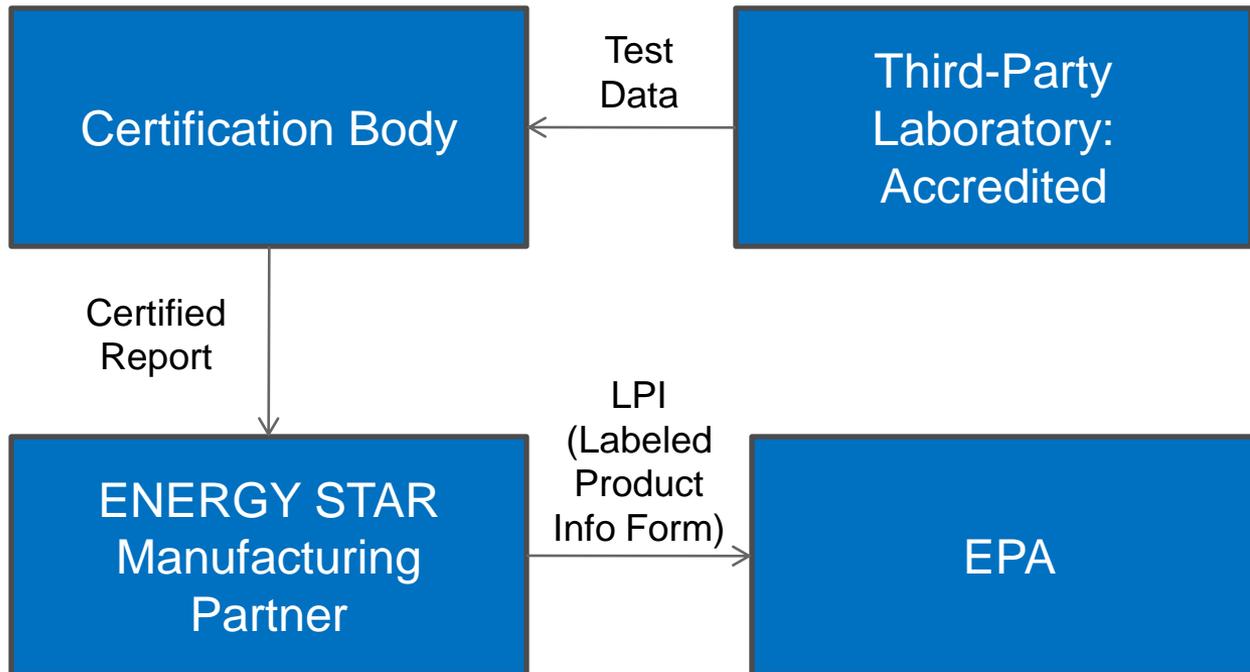
- Duct and pipe insulation (or insulating wraps)
- Products primarily used as an air sealer, not as whole-wall insulation (small quantity spray foam, house wraps)
- Wall or ceiling paints and coatings
- Exterior or interior finishing systems
- Fenestration covers or shades
- Insulation products under R-3.0 (minimum value)
- Under-slab foil products claiming a reflective insulation benefit
- ICFs claiming a thermal mass benefit*
- Structurally Insulated Panels (SIPs)*

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3rd Party Certification Flowchart



Require 3rd party certification of R-values and Flame/Smoke tests



EPA will not require 3rd party verification of insulation products

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Certification now required



What does 3rd Party Certification Mean?

- Detailed guidelines on the CB approval process for all other ES product categories at:
 - www.energystar.gov/testingandverification
- Certification body accredited under ISO Guide 65
- Data generated by ISO/IEC 17025 std. for lab testing.
- Certify insulation to latest IECC (2009) and IRC code
- Manufacturer pays for all testing and certification
- Examples of possible CBs for insulation (interested)
 - ICC-Evaluation Service
 - UL-Environment

Note: EPA will not require sales data be submitted or additional verification testing for insulation products

Proposed Review Process



1. Determine product eligibility
2. Prospective Partner becomes a Provisional Partner (PV) via Partnership Agreement and Commitment Form
3. PV obtains 3rd party certification for physical attributes to determine full eligibility.
4. Partner Submits Labeled Product Information Form (EPA reviews form and gives feedback)
5. PV updates information as needed
6. EPA performs final review and approves partnership.
7. EPA lists product “line” on ENERGY STAR Web site and gives manufacturer access to logos/marks

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Carrying the label on Insulation



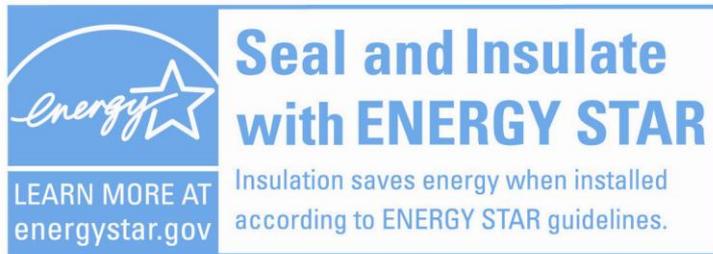
- EPA will allow manufacturers to “label” eligible insulation products for educational and promotional purposes
- Manufacturers whose products are eligible to carry the promotional label will be ES Partners
- EPA will provide more detailed information on its web site on eligible product lines or brands
- ENERGY STAR will clarify that it does **not** “qualify”, “rate”, “certify”, “approve”, or “endorse” specific insulation products

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Carrying the label on Insulation



For Labeling Insulation Products



For Promoting Sealing and Insulating Homes



Used by Insulation Manufacturers on Product Only

Used by Retailers, Insulation Manufacturers, and Air Sealing Manufacturers

Proposed Program Requirements

Documentation of Claims



Manufacturers will be required to follow:

- FTC's 16 CFR Part 260 "Guides for the Use of Environmental Marketing Claims" for environmental claims they make
- FTC's 16 CFR Part 460.19 "Labeling and Advertising of Home Insulation: Savings Claims" for any energy saving claims

In-home Spray and Pour Foam

Issue:

- Health and safety during and immediately after installation of spray and pour foam

Additional Requirements:

- Material Safety Data Sheets (MSDSs) which provide information on chemical reactants and products
- Provide guidance on worker protection requirements
- Provide specific cure times and reentry times for other workers, home owners, or residents after installation

See EPA's Design for the Environment Program web site for EPA's summary of issues related to Spray Polyurethane Foam:

http://www.epa.gov/dfe/pubs/projects/spf/spray_polyurethane_foam.html

Reflective Insulation



Issue:

- Installation guidance is weak and R-value claims by heat flow direction are missing or unclear

Additional requirements:

- Label products with 3rd Party Certification for several distinct wall, ceiling, or floor systems
- Certification reports and web site would have diagrams of each distinct system and air spaces
- Marketing must clearly show systems

Insulated Concrete Forms (ICF)



Issues:

- No industry standard for claiming thermal performance from massive walls (beyond foam insulation forms)

Additional Requirements:

- Only products claiming R-values from foam insulation forms (no thermal mass benefit claim) can be labeled
- EPA will consider including Thermal Mass Benefit by climate zone if standards and tests can be developed

Structurally Insulated Panels (SIP) or Other Panelized Systems



Issues:

- No industry standard or economically viable test for whole-wall thermal performance

Possible Future Approaches:

- ORNL's Whole-wall R-value: weighted-average including sheathing, cavity insulation, and framing
- Research on streamlined approach underway
http://www.ornl.gov/sci/roofs+walls/whole_wall/rvalue.html

EPA plans to end labeling of SIPs

There are other ways SIPs manuf. can use ES

Radiant Barriers

Continued Challenges



Issues:

- Current S&I label is not appropriate for radiant barriers
 - RBs are not sealed and they are not insulation
- Product loses effectiveness after a few years when installed horizontally in an open attic (dust)
- Little formal recognition or guidance by industry on climate dependent performance (climate cost effectiveness)
- Misleading R-value claims (there is no R-value)
- Currently no way to certify product is installed correctly
- No definition of or guidance on such products in IECC
- Guidance not clear how this product should be used in addition to traditional mass insulation

Radiant Barriers

Continued Challenges



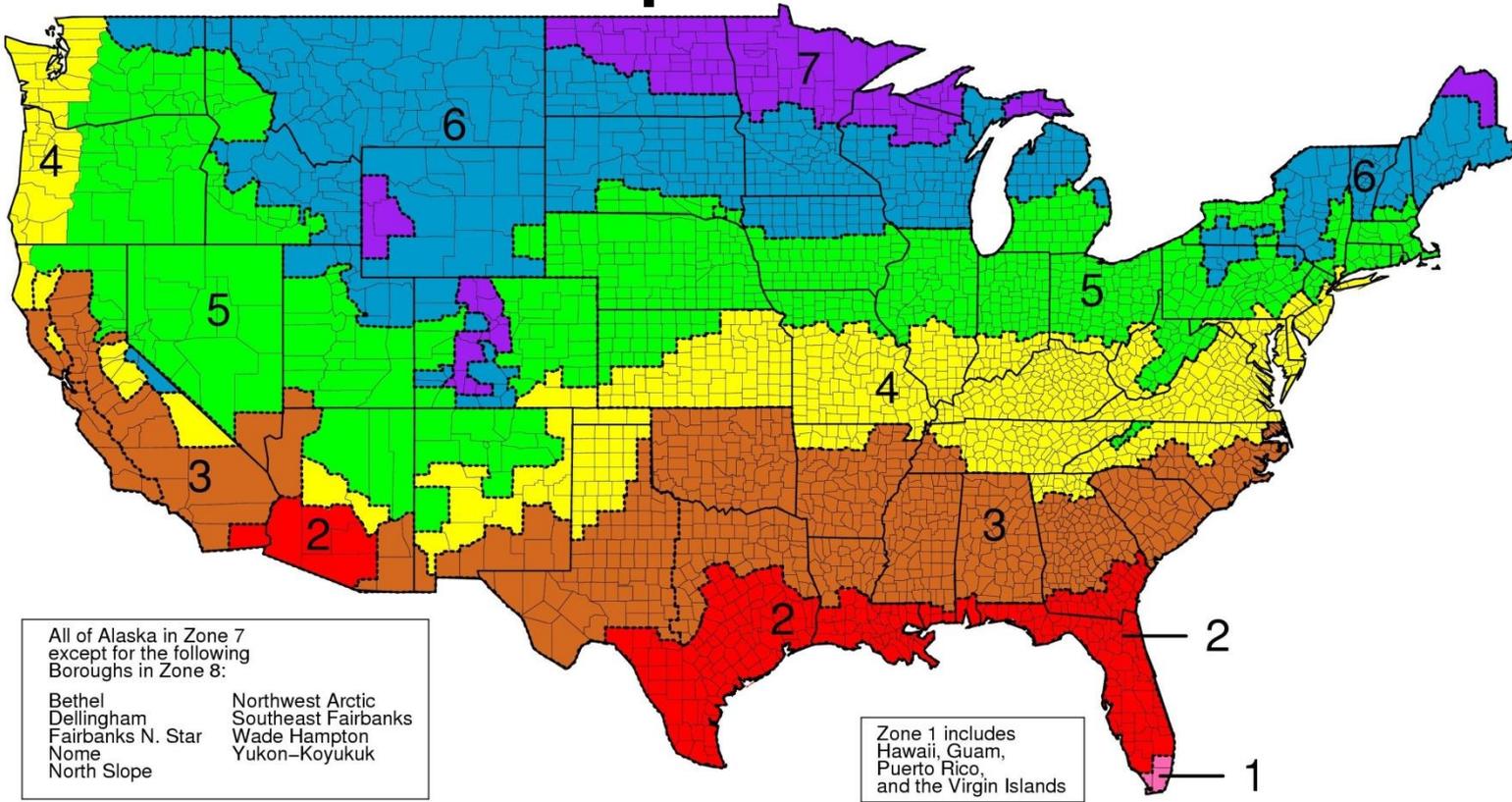
Options Being Considered:

- Create a new label with a climate map indicating regions where product is cost effective: for instance IECC Zones 1-2 and possibly 3-4
- Reject horizontal (dust collecting) installation methodologies
- No R-value claims allowed
- End current labeling since products are not really insulation when hung in an open attic

Radiant Barrier Impact by Climate Region



IECC Climate Zone Map



Oak Ridge National Lab Radiant Barrier Fact Sheet:
Savings from RB depend heavily on whether ducts are in the attic

Summary (highlights)

EPA will:



- Continue to “label” but not “qualify” home insulation for promotional and educational purposes
- Require 3rd Party certification of 2 physical attributes for all products for eligibility to carry the label
- Require (per the FTC) supporting documentation for many product claims on the manufacturer’s web site
- Require all manufacturers to renew their partnership by meeting the new requirement
- Label products with an R-value of 3.0 or greater
- Open questions: Radiant barriers and SIPs
- Label ICFs for insulation R-value – not thermal mass
- Draft Product Eligibility Criteria will be released soon

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Program Requirements



	Manuf. is a Partner	Product Requires Certification	Additional Required Verification	Submit Sales Data	Qualified	Labeled
<u>Insulation</u>		 To be eligible				
<u>Other ES Product Categories</u>						

Comments



ENERGY STAR is requesting comments and suggestions on these plans and specifications as they relate to insulation products.

Submit Comments to:
insulation@energystar.gov

Comments will be posted at:

http://www.energystar.gov/index.cfm?c=revisions.insulation_spec

Next Steps



- Comments due by **March 18, 2011**
 - Please send to Insulation@energystar.gov
- Response to Comments finalized – **April 8, 2011**
- Release Final Program Requirements – **May 1, 2011**
 - Partners can begin signing and submitting new partnership agreements
 - Begin 3rd Party Certification process
- Current partners must sign PA to recommit to program – **September 2011**



Contact Information

- Doug Anderson, U.S. EPA
 - E-mail: anderson.doug@epa.gov

- Ruchika Gupta, ICF International
 - in support of the ENERGY STAR Program*
 - E-mail: insulation@icfi.com

- Insulation Program Enhancement Website
 - http://www.energystar.gov/index.cfm?c=revision_s.insulation_spec

**Any Questions?
Please submit in comment box.**

