



Seal and Insulate with ENERGY STAR®

Insulation Manufacturer Participation Requirements

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Agenda



- **Program Purpose**
- **Program Background and Enhancements**
- **Communicating the Program**
- **Program Documents and Included Products**
- **Participation Process**
- **Issues with Specific Products**
- **Air Sealing Promotional Effort Update**
- **International Use of S&I Educational Graphics**
- **Important Dates and Times**
- **Questions (written only)**

Acronyms



- **ES = ENERGY STAR**
- **S&I = Seal and Insulate**
- **PA = Partnership Agreement**
- **CB = Certification Body**
- **EPS = Expanded polystyrene**
- **XPS = Extruded Polystyrene**
- **OCF = One Component Foam**
- **RB = Radiant Barrier**
- **SIP = Structurally Insulated Panel**
- **ICF = Insulated Concrete Form**
- **NRCCan = Natural Resources Canada**

Purpose of Program



The purpose of the 'Seal and Insulate with ENERGY STAR' Program is to:

- 1) Educate consumers and insulation product users about...
 - The benefits of air sealing and residential insulation
 - The importance of proper and safe insulation installation
- 2) Provide the manufacturers and retailers with tools to promote the program and their products

NOTE: Unlike other ES product categories, the purpose is not to differentiate higher performing products.

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, location of house [climate], other attributes)
- Most product differentiation can be overcome with more insulation or other prep work (air sealing)
- Builders, contractors, and homeowners want choices

Seal and Insulate with ENERGY STAR

Summary of Enhancements



- Clarified which products are included and excluded
- Set 3rd-party testing & certification for product lines
- Set R-value & surface burn characteristic as basic metrics
- Developed clear definitions & testing requirements for certification bodies, labs, and manufacturers.
- Developed new partner commitments (for all) that set clear requirements
- Restructured the language and messaging to make clear the differences between this program and other ENERGY STAR product programs, namely that this program primarily aims to educate end users and does not differentiate higher performing products.

Seal and Insulate with ENERGY STAR

Communicating the Program



This program primarily aims to educate end users, not to differentiate higher performing products

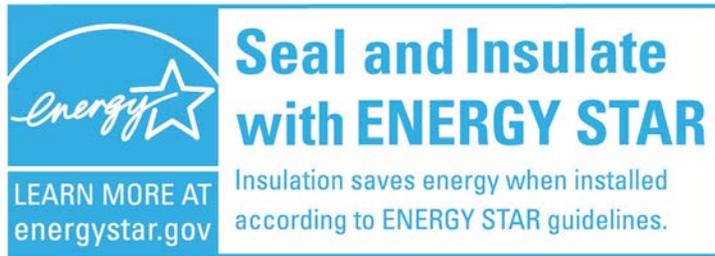
- Program has definitions and testing requirements instead of a product specification
- Products are not referred to as approved, endorsed, rated, qualified, or labeled by ENERGY STAR - Products are 3rd Party certified
- Marks are referred to as “Educational Graphics”
- Manufacturers are granted access to the educational graphics if they meet the participation requirements
- Manufacturers should emphasize education and training about their products and how to get them properly installed
- Manufacturers in the program will be listed on ES website

Seal and Insulate with ENERGY STAR

Educational Graphic for Insulation



**Educational Graphic
That May Go On
Insulation Products**



**For Promoting Sealing
and Insulating of Homes**



**Only Used by Insulation
Manufacturers on 3rd Party
Certified Product Lines**

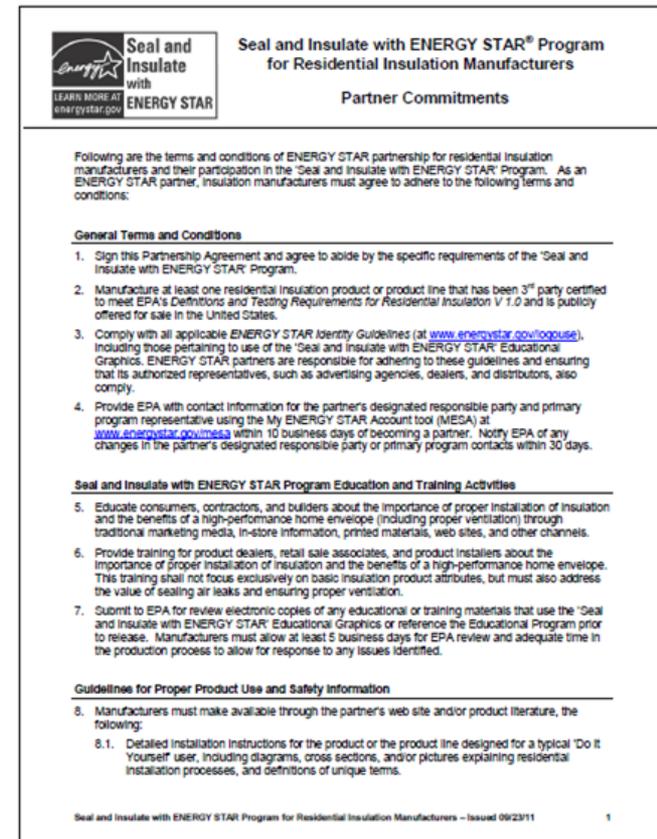
**Used by Retailers, Insulation
Manufacturers, and Air
Sealing Manufacturers**

Partnership Commitments

Insulation Products



- All current and new partners are required to sign a Partnership Agreement (PA), agreeing to the newly revised Partnership Commitments and Definitions and Testing Requirements
- **NEW Partner Commitments:**
 - Requirement to third-party certify products
 - Additional requirements for products manufactured through an in-home chemical process
 - Requirements regarding the promotion of Seal and Insulate with ENERGY STAR on products

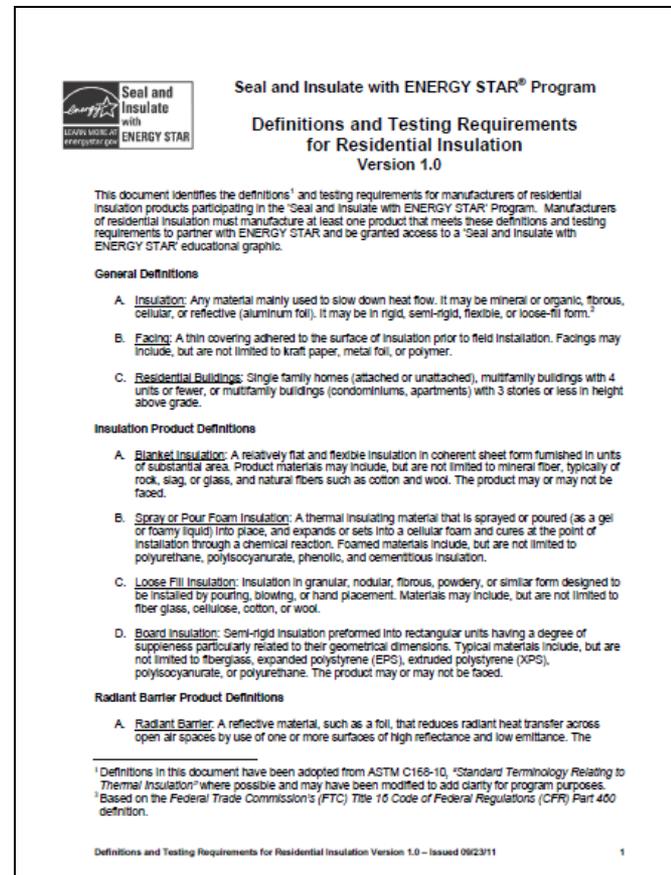


Definitions and Testing Requirements

Insulation Products



- NEW Definitions and Testing Requirements (formerly called Specification)
- Outlines:
 - Included and excluded products
 - Definitions
 - Testing Requirements
 - R-Value Test Requirements
 - Surface Burning Characteristics Testing Requirements



Seal and Insulate with ENERGY STAR

Included Products



- Insulation Types
 - 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)
- Insulation with Reflective Facing
- Foam portion of ICF assembly

Seal and Insulate with ENERGY STAR

Excluded 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)*
- Radiant Barriers

Partnership and Review Process



1. Current Partners and New Applicants submit a Partnership Agreement (PA) to www.joinenergystar.gov

- EPA will review the PA and the website to see if the manufacturer meets basic requirements:
 - There is a manufacturer website
 - At least one product line could likely be an ‘Included Product’
 - Some product lines are marketed and sold in the U.S.
 - Some product lines are marketed and sold as residential products
- If the PA is rejected, a rejection notice will be sent with an explanation and a summary of issues
- If the PA is approved:
 - The manufacturer will be considered an Active Applicant (not a full Partner)
 - An Partnership Agreement Confirmation notice will be sent
 - A Program Requirements Form will be sent

Partnership and Review Process Cont.



2. Complete and submit the Program Requirements Form to insulation@energystar.gov

- Form must include all links to required website materials, i.e. installation instructions, fact sheet, PPE guidance, MSDS, re-occupancy time, specific energy savings claims, environmental claims
- EPA will review and verify the information in the Program Requirements Form is correct and provide a list of corrective actions if needed.

3. Contact a Certification Body (CB) listed on the insulation manufacturer website

- CB will provide approved test laboratory information
- If test data is already available through an approved lab, submit the test data to the CB
- If an up-to-date code report is already available, provide link to the CB Report in the Program Requirements Form.

Currently one Certification Body is EPA recognized: ICC-ES

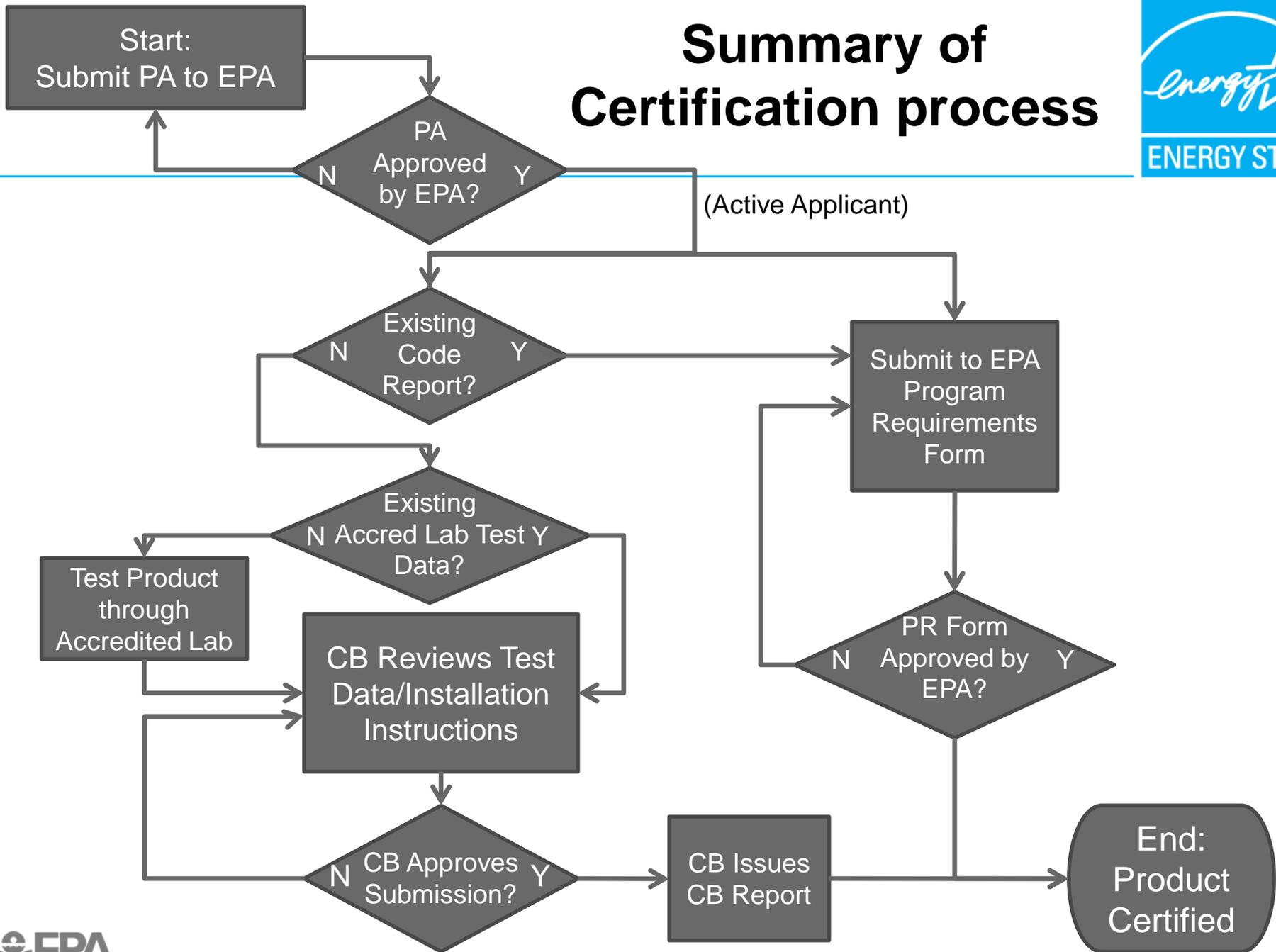
Partnership and Review Process Cont.



4. Once EPA has finalized and approved the Program Requirements Form, and the CB has indicated that the CB report is complete/approved:

- EPA will list the manufacturer as a Partner on the ENERGY STAR website, and will send a congratulatory letter
- EPA will provide the Partner with a **My ENERGY STAR Account (MESA)** where the Educational Graphics may be accessed
- CB will post the CB Report on their website

Summary of Certification process



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:

- Provide proper Material Safety Data Sheets (MSDSs) which include info on chemical reactants and products
- Provide guidance on worker protection requirements (as is required for all products)
- Provide specific reentry (or re-occupancy) times
 - Canadian Construction Materials Centre has a searchable [Registry of Product Evaluations](#)

See EPA's DfE Program web site for info on SPF

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

Reflective Insulation



Issue:

- Currently, installation guidance is weak and R-value claims by heat flow direction are often missing or unclear

Requirements:

- Products with 3rd Party Certification for distinct wall, ceiling, or floor systems may participate in the S&I Program
- Certification reports and web site must have diagrams of each distinct system and air spaces
- Heat flow direction of R-values must be clearly addressed
- Website and 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 is ending labeling of SIPs with S&I graphics.

SIPs manuf. should promote ES New Homes Program
- Special Allowances for SIPs in program

Radiant Barriers (RB)



Issues Continue:

- Current S&I label is not appropriate for radiant barriers
- Installation issues – dust on horizontal installs
- No industry recognition of climate dependent performance
- Misleading R-value claims (there is no R-value)
- No clear guidance on effective use of RB products in IECC

EPA is ending labeling RB with S&I graphics

- Current RB manufacturer partners have until May 23, 2012 to use S&I graphic. ES graphics must be removed by that date.

EPA will work with RB manufacturer stakeholders to consider alternative educational messaging

Air Sealing Products: Update



- Products marketed air leakage reducers in residential applications **may not** carry any ENERGY STAR label or graphic and are not included in this insulation revision process
- Limited, pre-approved use of S&I graphic may be allowed to promote air sealing in marketing materials
- 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
 - See copy of webinar on-line
 - Follow developments at web site:
http://www.energystar.gov/index.cfm?c=revisions.insulation_spec

International Use of S&I Graphics



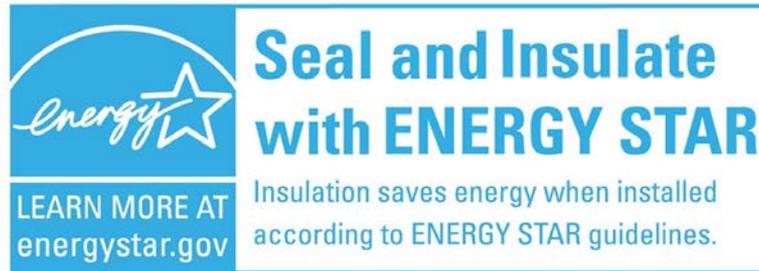
The “Seal and Insulate with ENERGY STAR” is a US based program. There is no agreement with any other country or international entity on the use the S&I Educational Graphics. **Therefore, the S&I Educational Graphics should only be used on products sold in the US.**

- In Canada, NRCan clearly states on their web site:
“Insulation and home sealing products are NOT included in Canada's ENERGY STAR program.”
 - <http://oee.nrcan.gc.ca/residential/business/manufacturers/insulation.cfm?attr=4>
- Manufacturers who do not sell insulation products in the US may not be ES insulation manufacturer partners and may not use the graphics.
- Manufacturers who sell an insulation product in the US that meet the participation requirements in the US and use the same packaging label outside the US may use the S&I Educational Graphic with a easy to read disclaimer next to the graphic such as:
 - Seal and Insulate with ENERGY STAR is an educational program and is for use on insulation products sold in the US.

International Use of S&I Graphics



Example of Package Disclaimer (for products sold in US and Internationally in exactly the same package)



“Seal and Insulate with ENERGY STAR” is an US educational program and graphic is for use on insulation products sold in the US.

Manufacturers may also not use the S&I Marketing Graphic in ads or marketing materials outside the US.



Important Dates and Times

- Final Participation Requirements were released – **Sept 23, 2011**
 - Partners can begin signing and submitting new Partnership Agreements (PA)
 - Begin 3rd Party Certification after EPA PA approval
- **Current partners** must sign PA to recommit to program by **May 23, 2012 (9 months)**
- Manufacturers that sign a PA must have at least one product certified within 1 year of signing
- Manufacturers must have at least one product certified to maintain full partnership status

Contact Information



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in support of the ENERGY STAR Program
 - E-mail: insulation@energystar.gov
- **Insulation Program Enhancement Website**
 - http://www.energystar.gov/index.cfm?c=revision_s.insulation_spec

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

