Low-Emissivity Storm Windows

New Weatherization Measure
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Why, What, and How
Today we Will Cover

• Background on storm windows

• The BPA Requirements and Specification

• The likely Forthcoming Energy Star Certification

• Additional Resources
Why Low-Emissivity (Low-E) Storm Windows

Potentially reduce home heating and cooling energy use by up to 14%

Storm windows are installed in 500,000 homes per year nationwide

Typically lower cost than window replacement
Background on Low-E Storm Windows

• 2015 Regional Technical Forum UES measure based on PNNL Research

• USDOE sponsoring energy certification through Attachments Energy Rating Council (AERC)

• AERC certification expected in 2017

• ENERGY STAR specification expected in 2017
BPA Specification
The Specification Incorporates

• Pacific Northwest National Lab research
• Regional Technical Forum Measure
• ENERGY STAR draft specification framework
• Input and revisions from BPA Weatherization Advisory Group which includes participants from BPA utility customers
Measures Available for

Existing Single-Family

Existing Multi-Family

Existing Manufactured Housing
Required Pre-existing Condition

Either:
– (1) single pane any frame type (e.g., metal, wood, vinyl)
– (2) double pane, metal frame only

Always:
– Without existing storm windows
Low-E Storm Window Requirements

- Emissivity of 0.22 or lower,
- Solar transmittance of greater than or equal to 0.55,
- Minimum glass thickness of 3mm,
- Minimum 10-year warranty on the window assembly and all individual parts, and
- If an exterior storm window, weep holes or other means to dissipate water
- Low-E Storm Window can not come in direct contact with metal frame prime window
Installation Requirements

– Must have the same opening type as existing window to facilitate ventilation and egress

– If installed with an existing metal frame window, must not have direct contact with metal frame

– Must be installed per manufacturer’s requirements

– Must be installed for permanent use (not seasonally)

– Low-E coating must face the interior of the home
Required Documentation
Documentation

Must be included in the BPA Qualified Product List (QPL)
Documentation

• End user information
• Contractor invoice
• Meets specification and is on BPA Qualified Products List
• Number and square footage of storm window installed
• Pre-existing condition
• Description of existing home (single-family, multi-family or manufactured)
$2.00 per Square Foot, or

Dollar for Dollar, not to exceed $10.00 per Square Foot for low-income
When ENERGY STAR certification becomes available, BPA will consider updating the next Implementation Manual.
RESOURCES

Information about BPA Weatherization Program:

RTF Decisions, including Low-E Storm Windows:
http://rtf.nwcouncil.org/decisions.asp
Questions/ Discussion

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