

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)

BPA Payment Rate

\$2.00 per Square Foot, or

Dollar for Dollar, not to exceed \$10.00 per Square Foot for low-income

ENERGY STAR Certification

When ENERGY STAR certification becomes available, BPA will consider updating the next
Implementation Manual

RESOURCES

Information about BPA Weatherization Program:

<https://www.bpa.gov/EE/Sectors/Residential/Pages/Residential-Weatherization.aspx>

RTF Decisions, including Low-E Storm Windows:

<http://rtf.nwcouncil.org/decisions.asp>

Questions/ Discussion

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