ENERGY STAR® for Windows, Doors, and Skylights

Program Update for NFRC Fall Committee Week

September 23, 2015
Minneapolis, MN
Doug Anderson - US EPA Project Manager
Program Update Topics

1) ENERGY STAR Version 6 Reminders
2) IVP Reminders
3) Most Efficient 2016 for Windows
4) December 2014 Stakeholder Meeting Feedback
5) U.S. / Canada ENERGY STAR Alignment
6) Storm Panels and ENERGY STAR
7) Next Steps on ENERGY STAR WDS Criteria
8) Upcoming Program Milestones
ENERGY STAR Version 6

As of Jan 1, 2015:

- Doors and Skylight criteria fully implemented
- NC, SC, and S window criteria implemented
- Installation instruction criteria implemented
- Air leakage criteria implemented
- Updated product labeling criteria implemented

On Jan 1, 2016:

- Northern Zone Criteria will be implemented
Verification Testing (IVP)

Program reminders:

- NFRC is testing 10% of ENERGY STAR product lines in 2015
  - Please keep ENERGY STAR product line selections up-to-date

- NFRC reports manufacturers to EPA for certain non-performance related issues:
  - ENERGY STAR label must be placed on all products according the program requirements
  - Installation instructions must be readily available
  - Manufacturers must respond to NFRC requests in a timely manner
Most Efficient 2016 for Windows

- Most Efficient criteria will remain unchanged in 2016

<table>
<thead>
<tr>
<th>Climate Zone</th>
<th>U-factor</th>
<th>SHGC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern</td>
<td>≤0.20</td>
<td>≥0.20</td>
</tr>
<tr>
<td>North-Central</td>
<td>≤0.20</td>
<td>≤0.40</td>
</tr>
<tr>
<td>South-Central</td>
<td>≤0.20</td>
<td>≤0.25</td>
</tr>
<tr>
<td>Southern</td>
<td>≤0.20</td>
<td>≤0.25</td>
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- Full criteria found at: [www.energystar.gov/mostefficient](http://www.energystar.gov/mostefficient)
- EPA is working with DOE to consider criteria for products with automated dynamic glazing beginning in 2017
Stakeholder Feedback

• Following the December 2014 meeting, EPA received written feedback from 12 industry stakeholders
  – This feedback is published on the ENERGY STAR website
  – Key issues raised by stakeholders outlined on the next slide

• EPA remains committed to collaboration with industry and transparency in the program, including criteria revisions

• EPA encourages stakeholders to stay involved in the process and keep an open dialogue with program staff
Stakeholder Feedback

Some Common Points:

1) Encourage a transparent and predictable criteria revision cycle
2) Collaborate with industry to collect market data
3) Emphasize cost-effectiveness for new specifications
4) Focus on replacement of poor-performing single-pane windows
5) Consider a lower U-factor in the Northern Zone
6) Harmonize specifications with Canada
7) Consider a specification for Low-E Storm Panels
U.S. / Canada ENERGY STAR Alignment

- EPA and Natural Resources Canada (NRCan) have met to discuss the possibility of aligning the U.S. and Canadian ENERGY STAR specifications.

- The Canadian program differs from U.S. program in key ways:
  - Different performance and labeling criteria
  - Different climate zone definitions
  - Use of Energy Rating ($E_R$) metric
  - Air Leakage testing based on infiltration and exfiltration
  - Product certification available through Canadian CBs

- EPA and NRCan will continue to work together to address program gaps and propose solutions.
Storm Panels and ENERGY STAR

- Preliminary Pacific Northwest National Laboratories (PNNL) research indicates that significant energy savings could be achieved through expanded purchasing of low-e storm panels

- Storm panels do not currently have a rating system
  - The Attachments Energy Rating Council (AERC) has begun developing a rating and certification program

- EPA is developing a Framework Document to explore a possible ENERGY STAR specification for storm panels
  - Framework Document will not propose criteria, but will present issues for consideration and stakeholder comment
  - Expected publication: Late 2015 or early 2016

- Possible Draft 1 Criteria by Mid 2016
Next Steps on ENERGY STAR WDS Criteria

  - Framework Document will not propose criteria, but will present methodology, sources and other issues for consideration and stakeholder comment
- EPA will conduct technical and market research in 2016-2017
  - Technical advancement and available products
  - Market Penetration
  - Costs and energy savings
  - Updated codes and standards
- If research indicates a revision is needed, Draft 1 of Version 7.0 Criteria would be proposed in 2017, at the earliest
# Upcoming Program Milestones

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Expected Date</th>
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<tbody>
<tr>
<td>Storm Panels Framework Document</td>
<td>Late 2015</td>
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<tr>
<td>WDS Version 6.0 Northern Zone Effective Date</td>
<td>January 1, 2016</td>
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<tr>
<td>Storm Panels Draft 1</td>
<td>Mid 2016</td>
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<tr>
<td>EPA Market Research on WDS</td>
<td>2016 – 2017</td>
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<tr>
<td>Possible WDS Version 7.0 Draft 1</td>
<td>Spring or Summer 2017 (earliest)</td>
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General ENERGY STAR Fenestration Questions
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