



ENERGY STAR® for Windows, Doors, and Skylights

Program Update for NFRC Fall Membership Meeting

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San Diego, CA

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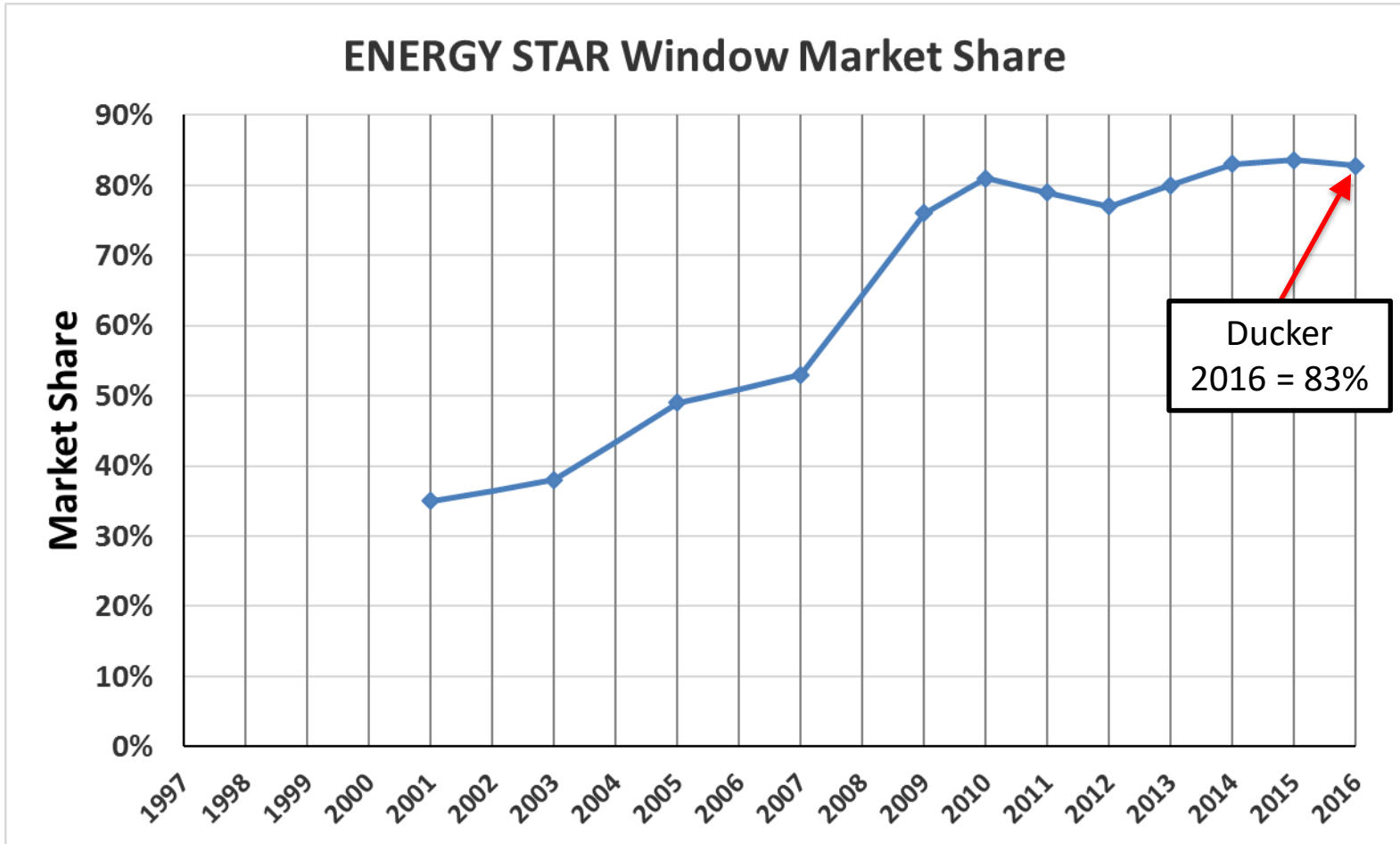


Program Update Topics

- 1) ENERGY STAR Market Share
- 2) IVP Update
- 3) Most Efficient 2018 for Windows
- 4) U.S. / Canada ENERGY STAR Alignment
- 5) ENERGY STAR and Storm Windows
- 6) Next Steps on ENERGY STAR WDS Criteria
- 7) Upcoming Program Milestones



ENERGY STAR Window Market Share





ENERGY STAR Market Share

Overall ENERGY STAR Penetration

	2009	2010	2011	2012	2013	2014	2015	2016
Residential Windows	76%	81%	79%	77%	80%	83%	84%	83%
Hinged Entry Doors	70%	71%	73%	74%	76%	77%	79%	78%
Skylights – All	70%	70%	68%	62%	60%	62%	65%	64%

From Ducker Worldwide



Verification Testing (IVP)

Update:

- In December of 2016, EPA announced that, beginning in 2017, **5%** of ENERGY STAR product lines would be selected for IVP
 - Previously the selection goal was 10% (so the rate is cut in ½)
 - Change based on data from 3 full years of testing
 - No changes to basic verification requirement or process
- NFRC has indicated to EPA that thermal test results of 4th surface products are now validating within NFRC tolerances
- EPA and NFRC are discussing a process to allow product inspection after thermal testing, but before component eval.
- Please keep ENERGY STAR product line selections up-to-date



Most Efficient 2018 for Windows

- ENERGY STAR Most Efficient recognition criteria will remain unchanged in 2018

Climate Zone	U-factor	SHGC
Northern	≤ 0.20	≥ 0.20
North-Central	≤ 0.20	≤ 0.40
South-Central	≤ 0.20	≤ 0.25
Southern	≤ 0.20	≤ 0.25

- Full criteria found at: www.energystar.gov/moste efficient
- EPA and LBNL/DOE are still interested in criteria for products with automated dynamic glazing



U.S. / Canada ENERGY STAR Alignment

- EPA and Natural Resources Canada (NRCan) have previously discussed the possibility of aligning the U.S. and Canadian ENERGY STAR specifications.... **However...**
- The Canadian program is now on a different track to establish more aggressive national building standards under the “2016 Pan-Canadian Framework on Clean Growth and Climate Change”
- ENERGY STAR will monitor developments in Canada and consider options for alignment, where feasible



Storm Windows and ENERGY STAR

- EPA issued a Draft 1 Specification and Criteria Analysis Report on July 21, 2017
 - Comments were received and are now posted on-line
 - EPA's is drafting responses to the comments for release this Fall
- Several issues will be addressed in the responses:
 - Product certification process
 - Performance at a higher emissivity level (0.15 vs 0.22)
 - Low solar transmittance performance in additional zones
 - Safety and structural certification
- EPA plans to issue responses to comments with some additional analysis by the end of 2017



ENERGY STAR Certification Process

EPA has a well developed certification (and verification) process based on ISO Standards 17025 and 17065

- Requirements and SOPs can found on-line at: www.energystar.gov/testingandverification
- Only ISO Std 17065 accredited Certification Bodies can certify products
- For Storms, certification using documented physical testing will be part of the process (emissivity, solar transmittance, air leakage)
- Verification testing will also include physical checks of the product
- ENERGY STAR does not require performance numbers to be reported on the product or package: could look up numbers on-line
- ENERGY STAR has its own certified product listing database

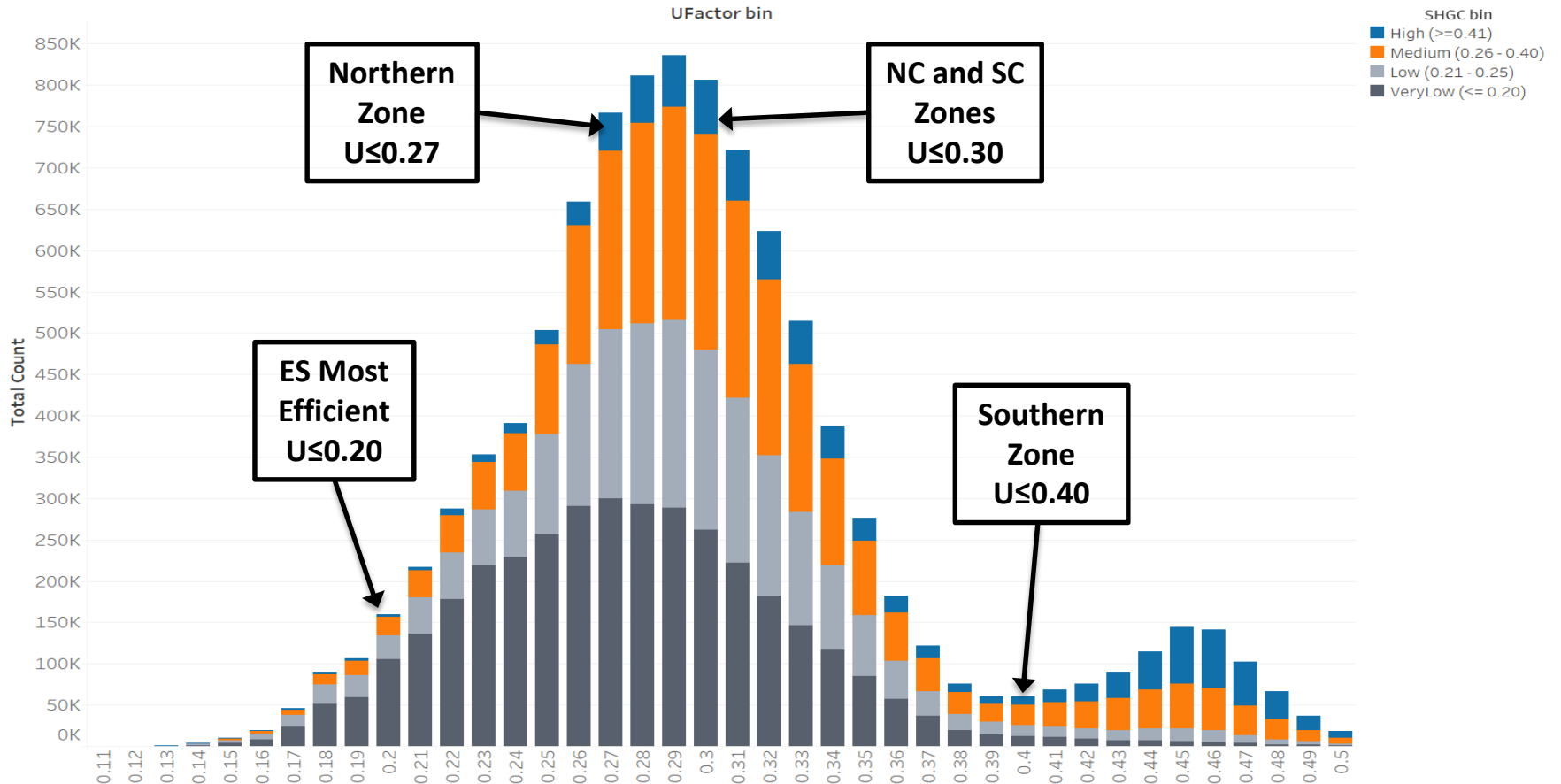


Next Steps on ENERGY STAR WDS Criteria

- EPA will continue conducting market and technical research
 - Technical advancement and available products analysis
 - ENERGY STAR market penetration data
 - Costs and energy savings analysis
 - Updated codes and standards review
- EPA hopes to publish a Framework Document for Windows, Doors and Skylights (WDS) Version 7.0 (funding dependent)
 - Framework Document will not propose criteria, but will present methodology, sources, and other issues for consideration/comment



CPD Pathway Analysis (discussed earlier)



Sum of Total Count for each UFactor bin. Color shows details about SHGC bin. The view is filtered on UFactor bin, which excludes Null.



Upcoming Program Milestones

Milestone	Expected Date
Storm Window Draft 1 Response to Comments	Q4 2017
ENERGY STAR Storm Window Final Draft	Q1 or Q2 2018
EPA Market and Technical Research on WDS	On-going
WDS Version 7.0 Framework Document	TBD (funding dependent)



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General ENERGY STAR Fenestration Questions

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