



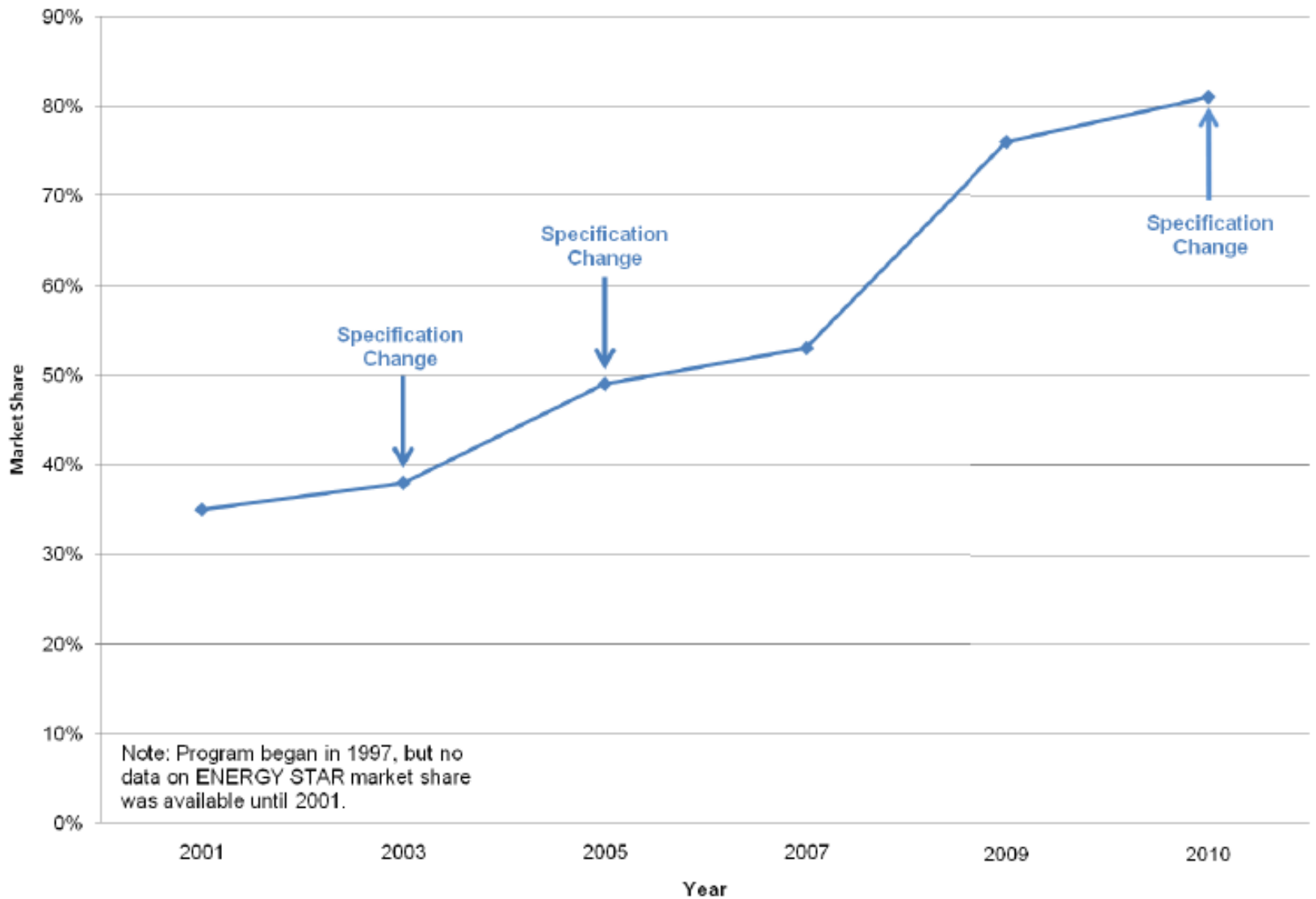
## COMMERCIAL LRRP

- Comment Period Ended: April 1, 2013  
<https://www.federalregister.gov/articles/2012/12/31/2012-31532/lead-renovation-repair-and-painting-program-for-public-and-commercial-buildings-request-for>
- EPA Public Meeting: **June 26, 2013**
- Details expected Spring, 2014



ENERGY STAR

# Window Energy Star Market Share



Source: Ducker Research Tracking Program



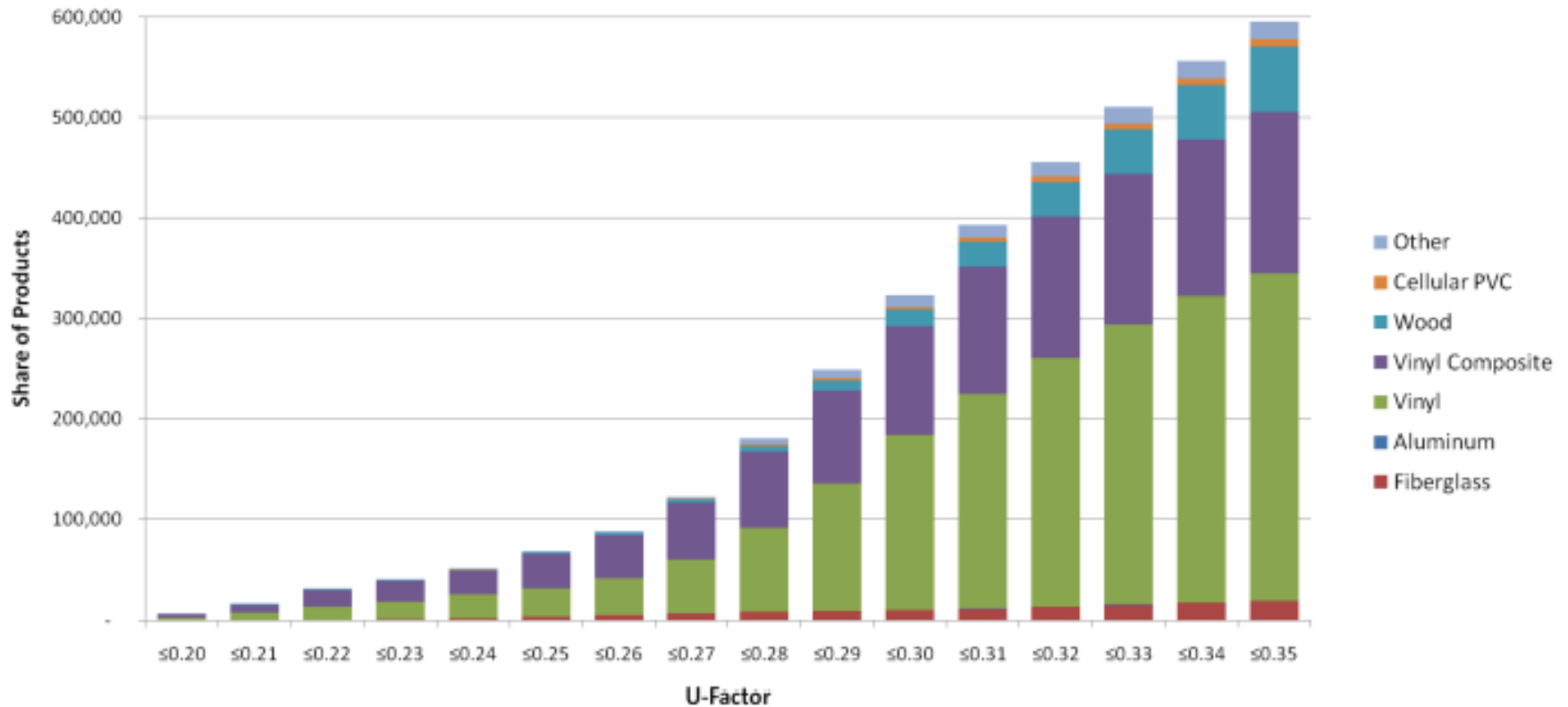
# VERSION 6.0 CRITERIA FOR WINDOWS



CLIMATE ZONE	U - FACTOR		SHGC	
	Current	2015	Current	2015
Northern	$\leq 0.30$	$\leq 0.27$	Any	Any
Equivalency	$= 0.31$	$= 0.28$	$\geq 0.35$	$\geq 0.32$
Equivalency	$= 0.32$	$= 0.29$	$\geq 0.40$	$\geq 0.37$
Equivalency	NA	$= 0.30$	NA	$\geq 0.42$
North-Central	$\geq 0.32$	$\geq 0.30$	$\leq 0.40$	$\leq 0.40$
South Central	$\geq 0.35$	$\geq 0.30$	$\leq 0.30$	$\leq 0.25$
Southern	$\geq 0.60$	$\geq 0.40$	$\leq 0.27$	$\leq 0.25$

# NORTHERN ZONE

## Cumulative Distribution of Frame Types for Low U-Factor Windows

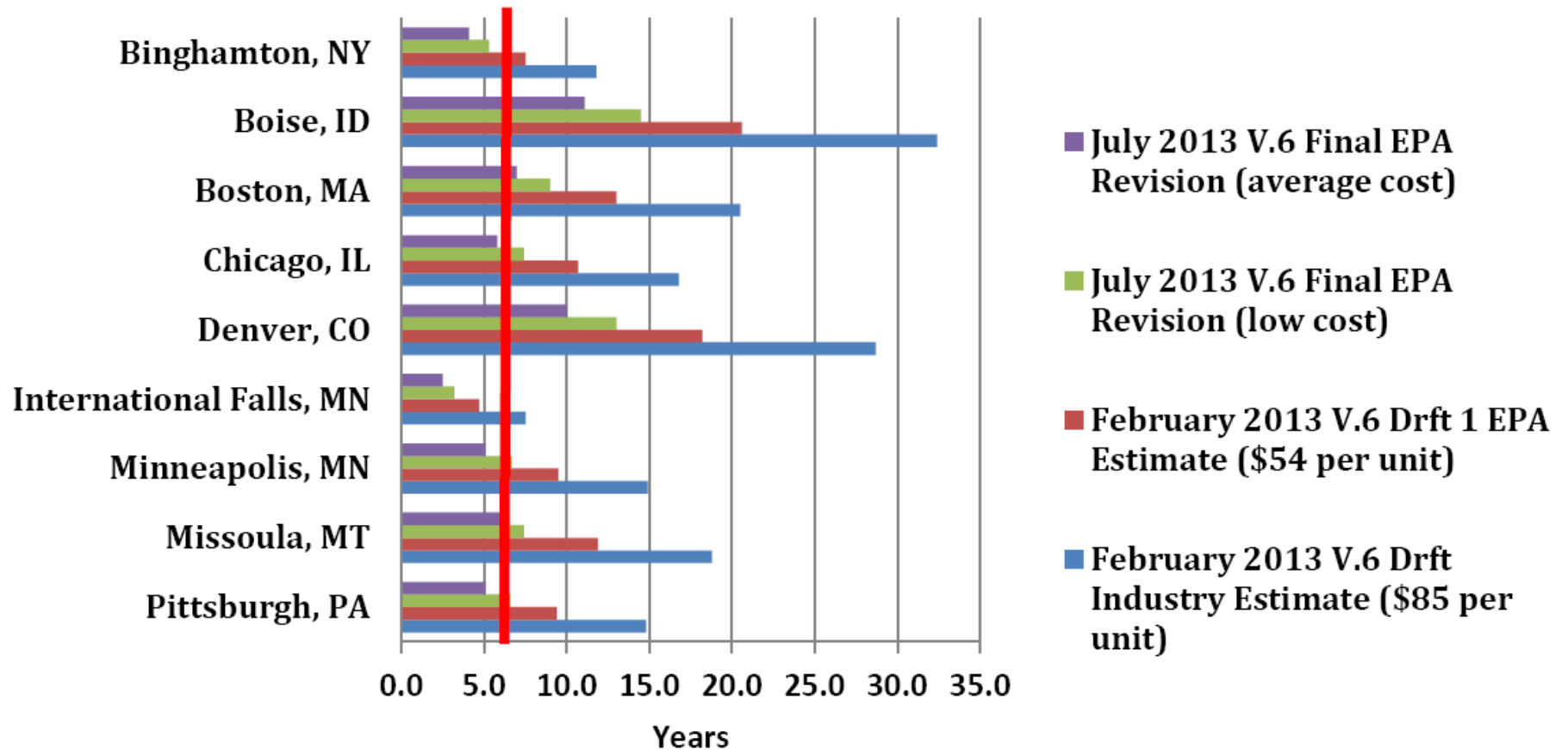


Source: NFRC Certified Products Directory



# ENERGY STAR Payback Period

## Version 6 Draft and Final



Source: Industry Data from Window Manufacturers

Climate Zone	U-factor	SHGC
Northern	$\leq 0.20$	$\geq 0.20$
North-Central	$\leq 0.20$	$\leq 0.40$
South-Central	$\leq 0.20$	$\leq 0.25$
South	$\leq 0.20$	$\leq 0.25$

- Excluded: Commercial Windows, Doors, Skylights, TDDs
- Matches Canadian Most Efficient Window Criteria
- 12 Month cycle too short
- $SHGC \leq 0.20$  for Northern penalizes grids of heavy frames
- Climate variations ignored
  - Triple pane in the South results in a 100 year payback
- Identical values proposed for 2014

PRODUCT CATEGORY	MODELS	ENERGY STAR PARTNERS
Windows*	344	40
Heat Pumps	235	6
Ventilating Fans	165	6
Televisions	151	16
Furnaces	93	6
Refrigerators	91	10
Ceiling Fans	38	12
Computer Monitors	35	15

*\*Wood, vinyl, fiberglass and composites framed products*





## Partner Landing Pages

**Promote your products from your website**

- List product features/options on your own terms
- Drive sales of Most Efficient products by connecting customers to sales staff/local dealers
- Count traffic from ES Most Efficient page







## Partner Landing Pages

### Requirements for ES to link to your site:

- Display the Most Efficient 2013 logo
- List and describe recognized product features
- Link back to [energystar.gov/moste efficient](http://energystar.gov/moste efficient)





## ATTACHMENTS CERTIFICATION FUNDING

- January, 2013:  
DOE **Building Technologies Program** issued **RFI** to support funding of an “attachment” energy certification and labeling program.



# U.S. DEPARTMENT OF ENERGY

## • Exterior attachments:



Low-e Storm Window



Fixed Awning



Dynamic Awning



Roller Shutter - Window



Roller shade



Solar screen

## • Interior attachments:



Drapes



Louvered blinds



Roller shades



Surface applied film



Cellular shade



Window quilt

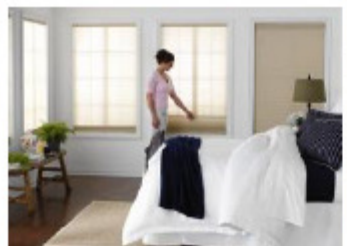


Seasonal film kit

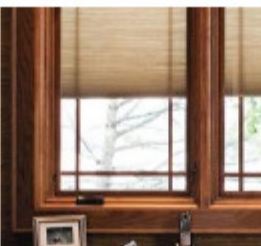
## • Between Glass (applies to non-sealed glazing systems only – applied as a retrofit option):



Louvered blinds



Roller shades



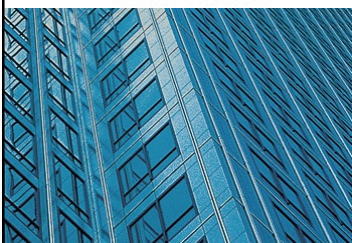
Cellular shades



Solar screens



Surface applied films





U.S. DEPARTMENT OF  
**ENERGY**

## ATTACHMENTS CERTIFICATION FUNDING

- **Estimated Total Cost**  
\$1,400,000 - \$2,800,000 (DOE and cost share)
- **Total DOE Funding Anticipated:** \$1,400,000
- **Initial Funding:** \$200,000
- **Anticipated Level of Required Cost Share:**  
Minimum 50%
- **Fiscal Year of Initial Funding:** 2014





# Characterization – Status

Environmental Energy Technologies Division



Product Type	Test Procedure						Simulation Method					
	IN		OUT		BG		IN		OUT		BG	
	T	O	T	O	T	O	T	O	T	O	T	O
Cellular Shade	Existing	Existing	Not developed	Not developed	Existing	Existing	Under development	Under development	Not developed	Not developed	Under development	Under development
Window Quilts	Existing	Existing	Not developed	Not developed	Existing	Existing	Existing	Existing	Not developed	Not developed	Existing	Existing
Slat Shade (vertical/horizontal)	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing
Sheer Shade	Existing	Existing	Not developed	Not developed	Existing	Existing	Existing	Existing	Not developed	Not developed	Existing	Existing
Louvered Shutter	Existing	Existing	Existing	Existing	Not developed	Not developed	Existing	Existing	Existing	Existing	Not developed	Not developed
Roller Shutter	Existing	Existing	Existing	Existing	Not developed	Not developed	Existing	Existing	Existing	Existing	Not developed	Not developed
Pleated Shade	Existing	Existing	Not developed	Not developed	Existing	Existing	Under development	Existing	Not developed	Not developed	Under development	Existing
Solar Screen	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing
Roller Shade	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing
Roman Shade	Existing	Existing	Not developed	Not developed	Existing	Existing	Existing	Existing	Not developed	Not developed	Existing	Existing
Drape	Existing	Existing	Not developed	Not developed	Not developed	Not developed	Existing	Existing	Not developed	Not developed	Not developed	Not developed
Flat panel	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing
Surface applied Films	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing	Existing
Awnings	Not developed	Not developed	Existing	Existing	Not developed	Not developed	Not developed	Not developed	Existing	Existing	Not developed	Not developed

Existing
Under development
Not developed

NOTES: **IN**: Indoor mounted; **OUT**: Outdoor mounted; **BG**: Between glazing  
**T**: Thermal model; **O**: Optical model

# WINDOW ATTACHMENTS BENEFITS



Retrofit Option	Thermal							Visual			Economics			Other					
LEGEND	Insulation	Airtightness	Solar Heat Control	Winter Comfort	Summer Comfort	Condensation Resistance	Ventilation	Maintains View	Daylighting	Glare Control	Privacy	Low Product Cost	Low Installation Cost <sup>9</sup>	Durability/Service Life <sup>10</sup>	Adjustability	Protection for Window	Noise Control	Egress	Security
● "Greatest benefit"																			
◐ "Moderate benefit"																			
○ "Neutral or average"																			
⊙ "Potential detriment or weak point"																			
<b>Exterior Attachments</b>																			
Low-e storms windows	●	◐	◐ <sup>1</sup>	●	◐ <sup>1</sup>	◐	●	●	◐	○	○	○	○	●	◐	●	◐	○	◐
Awnings	○	○	●	●	●	○	●	◐ <sup>2</sup>	◐	●	○	○	⊙ <sup>3</sup>	◐	◐ <sup>4</sup>	◐	○	●	○
Roller shades	○	○	●	○	●	○	◐	○	◐	◐	●	◐	◐	○	◐	◐	○	○	○
Roller shutters	◐	○	●	○	●	○	○	⊙	⊙	●	●	⊙	⊙	●	◐	●	◐	○	●
<b>Interior Attachments</b>																			
Conventional roller shades	○	○	◐	◐	◐	○	○	○	◐	◐	●	●	○	◐	○	○	○	○	○
Conventional drapes	○	○	◐ <sup>5</sup>	◐	◐	○	○	○	○	◐	●	●	○	◐	○	○	○	○	○
Louvered blinds	○	○	◐	○	◐	○	◐	◐	●	●	●	●	○	●	○	○	○	○	○
Fixed window panels	◐ <sup>6</sup>	◐	◐ <sup>1</sup>	◐	◐ <sup>1</sup>	◐	⊙	●	◐	○	○	◐	●	○	⊙	○	◐	⊙	◐
Insulated cellular shades <sup>8</sup>	●	◐	◐	●	◐	⊙	○	○	◐	◐	●	○	◐	◐	●	○	◐	○	○
Window quilts	●	◐	◐	●	◐	⊙	⊙	⊙	⊙	○	●	○	⊙	○	◐	○	◐	○	○
Surface-applied films	○	○	◐	○	◐	○	○	◐	◐	◐	◐	◐	◐	○	○	◐	●	◐	◐
<b>Other</b>																			
Existing window rehab	○	◐	○	◐	○	○	●	●	◐	○	○	●	⊙	◐	●	◐	◐	◐	○
Solar Screens	○	○	●	○	◐	○	◐	⊙	⊙	◐	○	◐	●	◐	⊙	○	○	○	○
Seasonal single-use film kits	◐	●	○	◐	○	●	⊙	◐	◐	○	○	●	●	⊙	⊙	○	○	○	○



## ATTACHMENTS CERTIFICATION FUNDING

AAMA Rapid Response Team comments

- Discourage DOE from moving forward on this initiative
- Support NFRC as a certification agency for these products



# Residential Building Product *Tax Credits & Rebates*

**DSIRE™** U.S. DEPARTMENT OF ENERGY Energy Efficiency & Renewable Energy  
*Database of State Incentives for Renewables & Efficiency* IREC NORTH CAROLINA Solar Center  
Home | Glossary | Links | FAQs | Contact | About

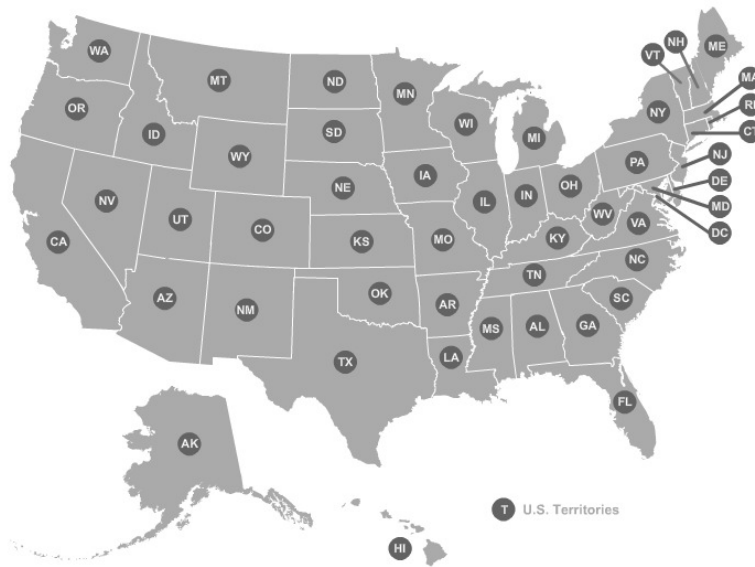
**DSIRE SOLAR**  
solar policy information

DSIRE is the most comprehensive source of information on incentives and policies that support renewables and energy efficiency in the United States. Established in 1995, DSIRE is currently operated by the N.C. Solar Center at N.C. State University, with support from the Interstate Renewable Energy Council, Inc. DSIRE is funded by the U.S. Department of Energy.

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Search DSIRE View Federal Incentives







# Residential Building Product *Tax Credits & Rebates*



## OHIO Incentives/Policies for Renewables & Efficiency



- [See Federal Incentives](#)
- [See All Summaries](#)
- [See Residential Incentives Only](#)

### Financial Incentives

#### Green Building Incentive

- [City of Columbus - Green Columbus Fund](#)

#### Industry Recruitment/Support

- [Advanced Energy Job Stimulus Program](#)

#### Local Loan Program

- [Greater Cincinnati Energy Alliance - Residential Loan Program](#)
- [Hamilton County - Home Improvement Program](#)

#### Local Rebate Program

- [Greater Cincinnati Energy Alliance - Residential Rebate Program](#)

#### Non-Profit Rebate Program

- [Green Energy Ohio - GEO Solar Thermal Rebate Program](#)

#### Other Incentive

- [Air-Quality Improvement Tax Incentives](#)

#### PACE Financing

- [Local Option - Special Energy Improvement Districts](#)

#### Performance-Based Incentive

- [AEP Ohio - Renewable Energy Credit \(REC\) Purchase Program](#)
- [Duke Energy - Solar Renewable Energy Credits Program](#)
- [First Energy Ohio - Renewable Energy Credit Procurements](#)
- [Solar Renewable Energy Credits \(SRECs\)](#)

#### Property Tax Incentive

- [City of Cincinnati - Property Tax Abatement for Green Buildings](#)
- [City of Cleveland - Residential Property Tax Abatement for Green Buildings](#)
- [Qualified Energy Property Tax Exemption for Projects 250 kW or Less](#)
- [Qualified Energy Property Tax Exemption for Projects over 250 kW \(Payment in Lieu\)](#)



# Residential Building Product *Tax Credits & Rebates (OH continued)*

## Sales Tax Incentive

- [Energy Conversion and Thermal Efficiency Sales Tax Exemption](#)

## State Loan Program

- [Energy Conservation for Ohioans \(ECO-Link\) Program](#)
- [Energy Loan Fund](#)

## Utility Loan Program

- [Butler Rural Electric Cooperative - Energy Efficiency Improvement Loan Program](#)
- [Columbia Gas of Ohio - Home Performance Solutions Loan Program](#)

## Utility Rebate Program

- [AEP Ohio \(Electric\) - Residential Energy Efficiency Rebate Program](#)
- [AEP Ohio \(Gas\) - Residential Energy Efficiency Rebate Program](#)
- [AEP Ohio - Commercial Custom Project Rebate Program](#)
- [AEP Ohio - Commercial Energy Efficiency Rebate Program](#)
- [AEP Ohio - Commercial New Construction Energy Efficiency Rebate Program](#)
- [AEP Ohio - Commercial Self Direct Rebate Program](#)
- [AEP Ohio - Renewable Energy Technology Program](#)
- [American Municipal Power \(Public Electric Utilities\) - Commercial Efficiency Smart Program](#)
- [American Municipal Power \(Public Electric Utilities\) - Residential Efficiency Smart Program](#)
- [Butler Rural Electric Cooperative - Residential Rebate Program](#)
- [Columbia Gas of Ohio - Home Performance Solutions Program](#)
- [Columbia Gas of Ohio - Innovative Energy Solutions Program](#)
- [Consolidated Electric Cooperative - Heat Pump and Water Heating Rebates](#)
- [Dayton Power and Light - Business and Government Energy Efficiency Rebate Program](#)
- [Dayton Power and Light - Residential Energy Efficiency Rebate Program](#)
- [Dominion East Ohio \(Gas\) - Home Performance Program](#)
- [Duke Energy \(Electric\) - Commercial/Industrial Energy Efficiency Rebate Program](#)
- [Duke Energy \(Gas & Electric\) - Residential and Builder Energy Efficiency Rebate Program](#)
- [Firelands Electric Cooperative - Residential Energy Efficiency Rebate Program](#)
- [First Energy Ohio - Commercial Efficiency Rebates](#)
- [First Energy Ohio - New Home Builder Incentive Program](#)
- [First Energy Ohio - Residential Efficiency Rebates](#)
- [The Energy Cooperative - Residential Energy Efficiency Rebate Program](#)
- [Vectren Energy Delivery of Ohio \(Gas\) - Commercial Energy Efficiency Rebates](#)
- [Vectren Energy Delivery of Ohio \(Gas\) - Energy Star Home Rebate](#)
- [Vectren Energy Delivery of Ohio \(Gas\) - Residential Energy Efficiency Rebates](#)



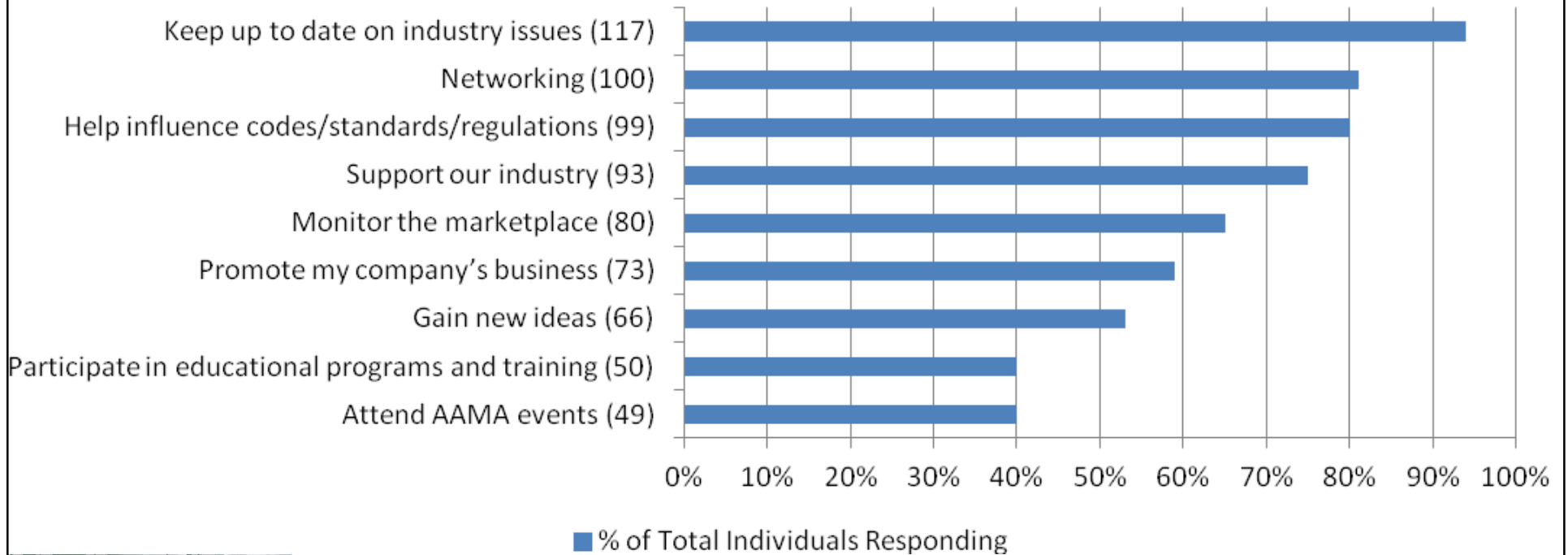
# The Value of AAMA Membership

- Industry Representation
  - Manufacturers, Suppliers, Test Labs
- Code Advocacy
- Standards Development
- Education and Professional Certification





# Why do you participate in AAMA?

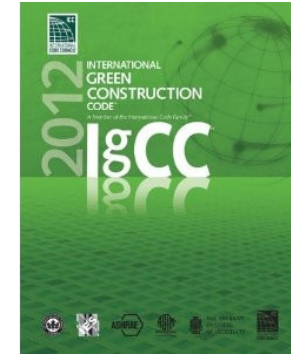
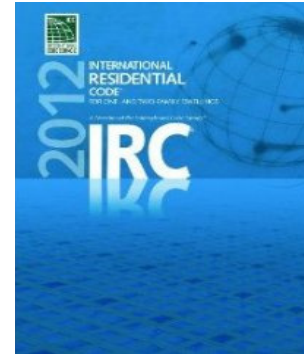
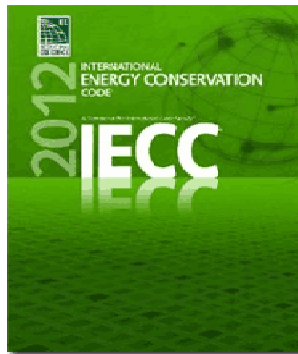


Note: 124 individuals from 85 member companies responded



# Code Advocacy

- AAMA standards referenced in codes
- Actively involved in code development





# Education and Professional Certification

- Lends credibility to certified professionals
- Increases customer confidence
- Differentiates representative from competitors
- Facilitates training of new employees
- Addresses latest performance requirements





# Vinyl Materials Council

## Membership (117)

- Profile & Window Producers (46)
- Material Suppliers (34)
- Laboratories (5)
- Coating & Component Suppliers (15)
- Machinery & Hardware Producers (17)





# Vinyl Profile Certification Program

- Established 1993
- Producers (56)
- Locations (70)
- Certified Profiles (16,678)
- Certified Attributes
  - Dimensional Stability
  - Heat Resistance
  - Weight Tolerance
  - Color & Impact Strength Retention
  - Maximum Lead content
  - Flame Spread & Smoke Generation – Miami Dade





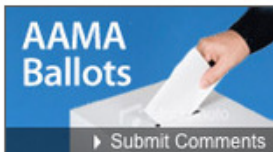
**IN THIS SECTION**

- State Code Web Links
- Energy Code Web Links



**CRF Tool**

▶ Calculating Condensation



**AAMA Ballots**

▶ Submit Comments

## CODES

AAMA is your voice for support and action at all levels of the national regulatory process for the fenestration industry. Every year, we proactively and effectively influence codes, construction and specification issues related to windows, doors, skylights, curtain wall and storefronts.

Proactive involvement in related building organizations, as well as national and state code and regulatory arenas, ensures that our members' interests are represented, thus guiding manufacturers in distribution of high-quality products to the consumer. AAMA also specifically monitors key regulatory states in the Southeast and Western regions of the U.S. and even has separate branches of the association devoted to these regions.

Many AAMA documents are referenced in national and state codes, and our staff and members work with building code and government agencies to ensure that these documents enable code officials to evaluate product performance quality on a level playing field.

■ PRINT ■ SHARE

■ PRINT ■ SHARE



▶ What's New?



▶ FenestrationMasters™



▶ Photos & Applications



**PUBLICATION STORE**



**PRODUCT CERTIFICATION**



**CERTIFIED PRODUCTS DIRECTORY**



**MEDIA RELATIONS**



**FENESTRATION MASTERS**



## Acknowledgements:

- ★ Maureen Knight (AAMA) – EnergyStar Analysis
- ★ Ric Jackson (Quanex) – EnergyStar comparisons
- ★ Rich Rinka (AAMA) – Certification Statistics
- ★ Richard Doyle (Vinyl Institute) – Fedrizzi video

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Contact me at [rwalker@aamanet.org](mailto:rwalker@aamanet.org)

330-242-1916

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