



ENERGY STAR for Windows, Doors, and Skylights

**Northeast Window & Door Association
Educational Seminar**

Washington, DC

April 23, 2009

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U.S. Department of Energy

Agenda



- Overview of Criteria Revision Process
- Final Windows, Doors, and Skylights Criteria
- Next Steps
- Overview of Fenestration Tax Credit
- Questions

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ENERGY STAR Guiding Principles



1. Significant energy savings
2. Cost-effective
3. Energy savings can be measured
4. Equivalent functionality and performance
5. No proprietary technologies
6. Label provides meaningful differentiation

2007: Motivation for Criteria Change



- Market share > 50 percent nationally
- 80 to 90 percent in remodeling market
- Building codes beyond ENERGY STAR
- No longer identifying superior efficiency
- No longer driving efficient product production

Analysis



DOE analyzed the following data:

- Scores of stakeholder interviews & discussions
- More than 100 stakeholder comment letters
- Data on potential savings, technological feasibility, and market impacts
- Final approved changes to 2009 IECC
- 2009-2010 fenestration tax credit in the 2009 American Recovery and Reinvestment Act

Milestones



Date	Milestone
Fall 2007	Revision began
8/6/08	Released <i>Draft Criteria and Analysis</i>
8/13/08	Stakeholder Meeting
3/11/09	Released <i>Revised Draft Criteria and Report</i>
4/7/09	Announced final criteria

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New Criteria: Effective January 4, 2010

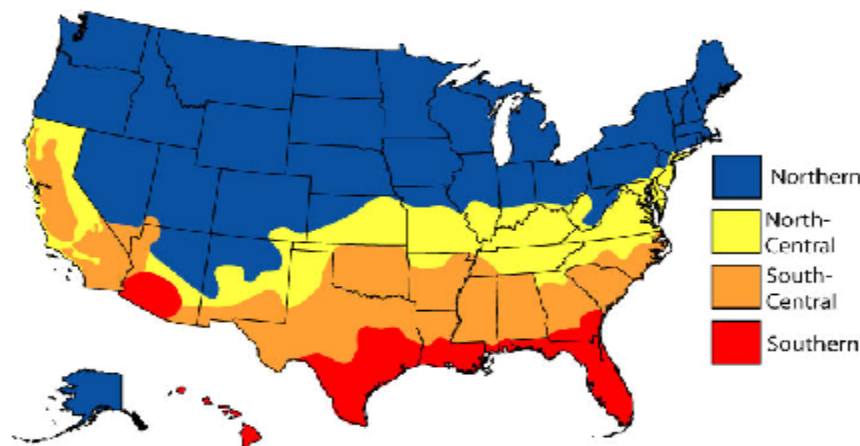


ENERGY STAR® Qualification Criteria for Residential Windows, Doors, and Skylights

Windows				Doors			Skylights		
Climate Zone	U-Factor ¹	SHGC ²		Glazing Level	U-Factor ¹	SHGC ²	Climate Zone	U-Factor ¹	SHGC ²
Northern	≤ 0.30	Any	Prescriptive Equivalent Energy Performance	Opaque	≤ 0.21	No Rating	Northern	≤ 0.55	Any
	≥ 0.31	≥ 0.35		≤ ½-Lite	≤ 0.27	≤ 0.30	North-Central	≤ 0.55	≤ 0.40
	≥ 0.32	≥ 0.40		> ½-Lite	≤ 0.32	≤ 0.30	South-Central	≤ 0.57	≤ 0.30
North-Central	≤ 0.32	≤ 0.40				Southern	≤ 0.70	≤ 0.30	
South-Central	≤ 0.35	≤ 0.30							
Southern	≤ 0.60	≤ 0.27							

¹ Btu/h.ft².°F

² Fraction of incident solar radiation

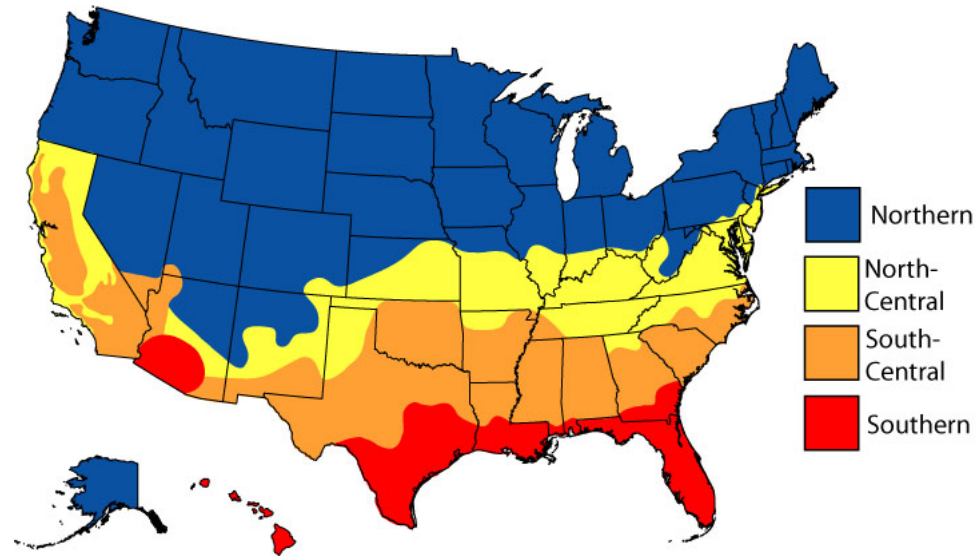


Changes From Current ENERGY STAR

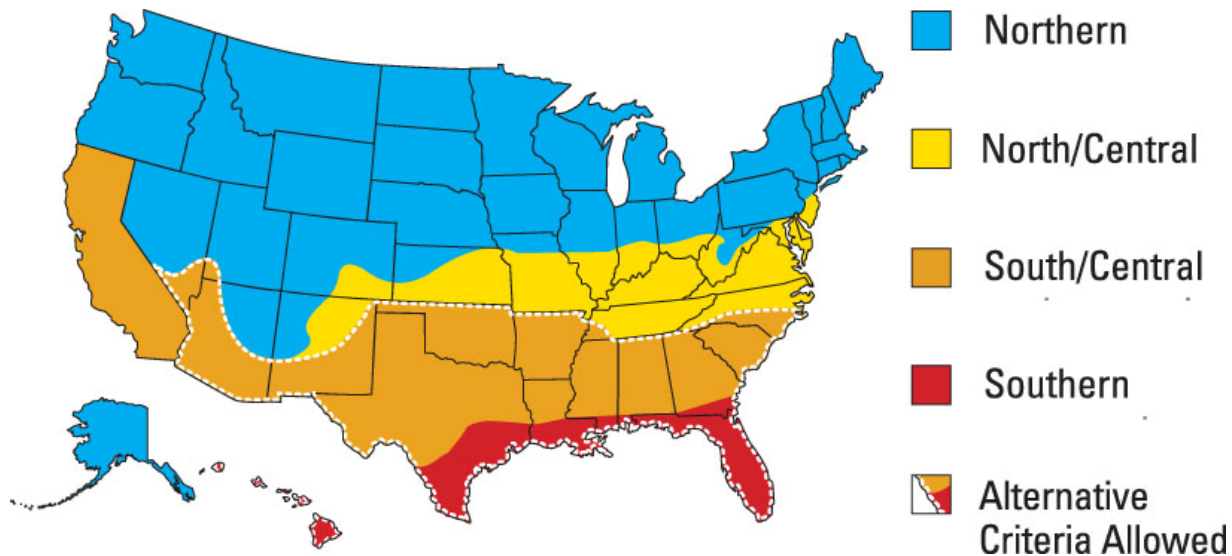


- Phased implementation
- Revised climate zone boundaries
- Tightened performance criteria
- Separate criteria for doors
- Insulating glass certification requirement
- Collection of shipment data

Phase 1 Climate Zones



Current Climate Zones



Changes: Window Criteria



- Modified U-factor and SHGC levels
- Established limited tradeoffs in Northern Zone
 - Benefit of high-gain windows where appropriate
 - Equivalent performance to tax credit levels
- Eliminated tradeoffs in southern zones
- Shifted doors to separate category



Changes: Door Criteria

- Separate criteria from windows
- Apply to both swinging and sliding doors
- Based on glazing levels rather than climate zones
- Three glazing levels
- Introduce product differentiation
- Recognize greater efficiency of doors

Changes: Skylight Criteria



- Modified U-factor and SHGC levels
- Added documentation requirement for Tubular Daylighting Devices (TDDs)

Changes: Additional Requirements



- Insulating glass certification requirement
- Collection of shipment data

Benefits



The criteria are expected to yield:

- 9.21 trillion BTU in annual energy savings
- Reasonable payback periods
- A choice of technology options

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Timeline



Partner Requalification Begins	July 2009
Phase 2 Analysis Begins	Late 2009
Effective Date for Phase 1 Criteria	January 4, 2010
Phase 1 Transition Period Ends	March 31, 2010
Effective Date for Phase 2 Criteria	TBD



Phase 2 Objectives

- Address issues raised during Phase 1
- Drive production of high-efficiency products
- Allow adequate time for new product design

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2009-2010 Fenestration Tax Credit



- Raised limit for home improvements to \$1500
- Increased to 30 percent of product cost
- Does not cover installation costs
- Removed individual caps on windows and doors
- Established U-factor and SHGC at 0.30 or less
- Took effect February 17, 2009



Frequently Asked Questions

1. What about windows, doors, and skylights purchased between 1/1 and 2/17, 2009?
2. What does the consumer need as documentation?
3. How do I find out the manufacturer's certification statement requirements?
4. Are storm products eligible?

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