



US DOE Technical Analysis Workshop for Window Attachments

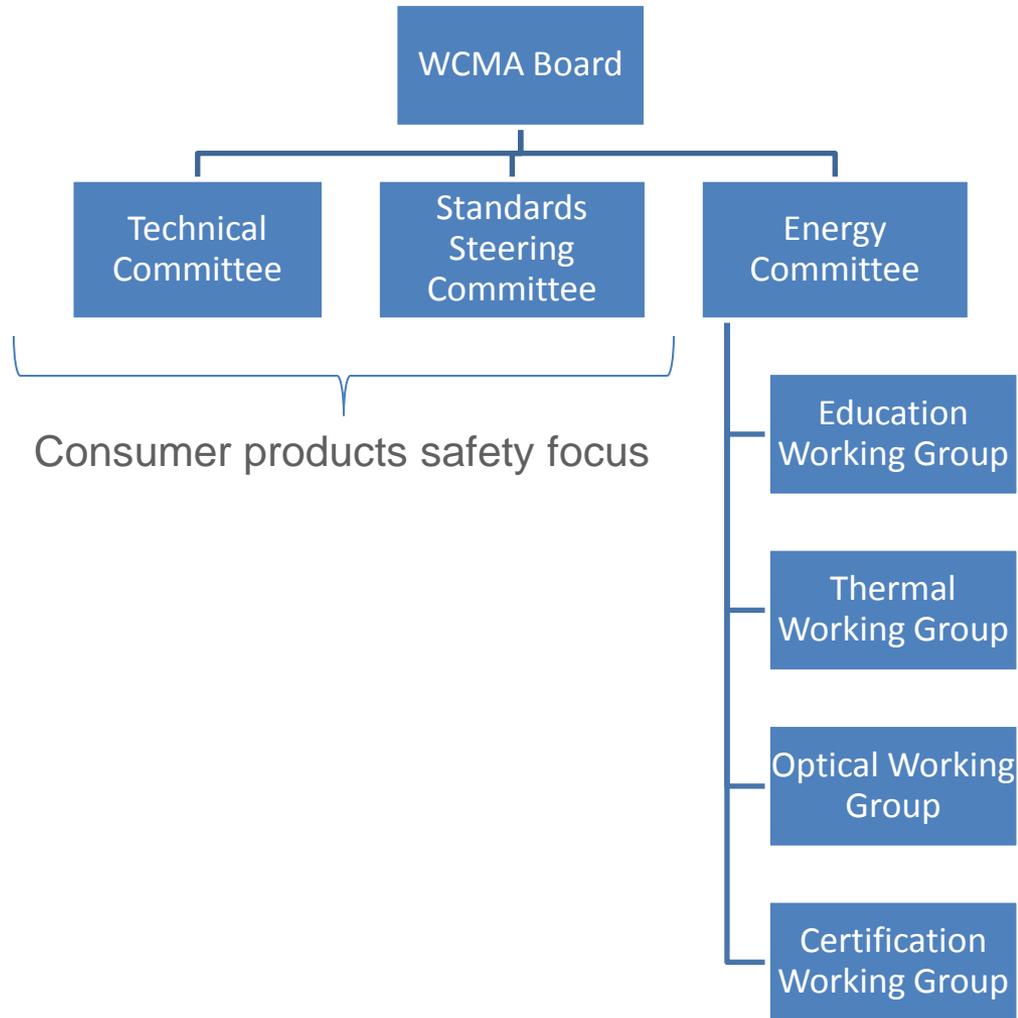
Industry position and rationale for window attachment product prioritization and phasing

July 16 and 17 in Washington, DC

WCMA Overview

- Formed more than 50 years ago as the Venetian Blind Council
- Represents the interest of window covering manufacturers, fabricators and assemblers
- Products include interior/exterior blinds, shades, shutters, curtains, curtain rods, drapes, drapery hardware and other window treatments
- Membership Categories:
Manufacturers, Fabricators, Associates
- Broad membership base, including collaboration with PAMA and ESSO
- ANSI accredited standard development organization

WCMA Structure



Energy Efficiency Program Goal

- Achieve significant energy savings for U.S. residents as quickly as possible through a technically valid ENERGY STAR program for window coverings:
 - Phase 1 program launch January 1, 2014
 - Phase 2 program launch January 1, 2015

WCMA Strategy – Phased Program

- Prioritize products for test procedure and simulation program development based on energy savings potential, market share, and existence of industry champions.
 - Phase 1: Establish residential program with minimum number of product types that can deliver national impact.
 - Phases 2+: Add products as technically valid test procedures and validated simulation programs are developed.

Technical Program Development

Component	Owner	Peer Review	Status
Behavioral Research	D&R	LBL, DOE, WCMA	In Progress (complete in September 2012)
U & SHGC Test Procedures with calculation methods	WCMA	LBL, ANSI (with canvas)	In Progress
EnergyPlus/RESFEN	LBL	DOE, Other National Labs, WCMA (support)	In Progress
Simulation Development	LBL	Other National Labs, WCMA (support)	In Progress/ some products complete
Simulation Validation	LBL	Other National Labs, WCMA (support)	In Progress/ some products complete

Performance Assessment

- Work collaboratively with other stakeholders
- Drive efforts towards simulation
- Test when simulation not complete or validated
- Develop cost effective test methods
 - Strive for testing on 1 base window
 - Use realistic, simple set of angles of incidence
- Simplify with validation

What Criteria Should Be Used for Selecting Products?

Proposed Criteria

- Energy savings
 - Market potential
 - Product performance
- Market share of product
- Industry interest
- Technical gap
 - Simulation
 - Test procedures

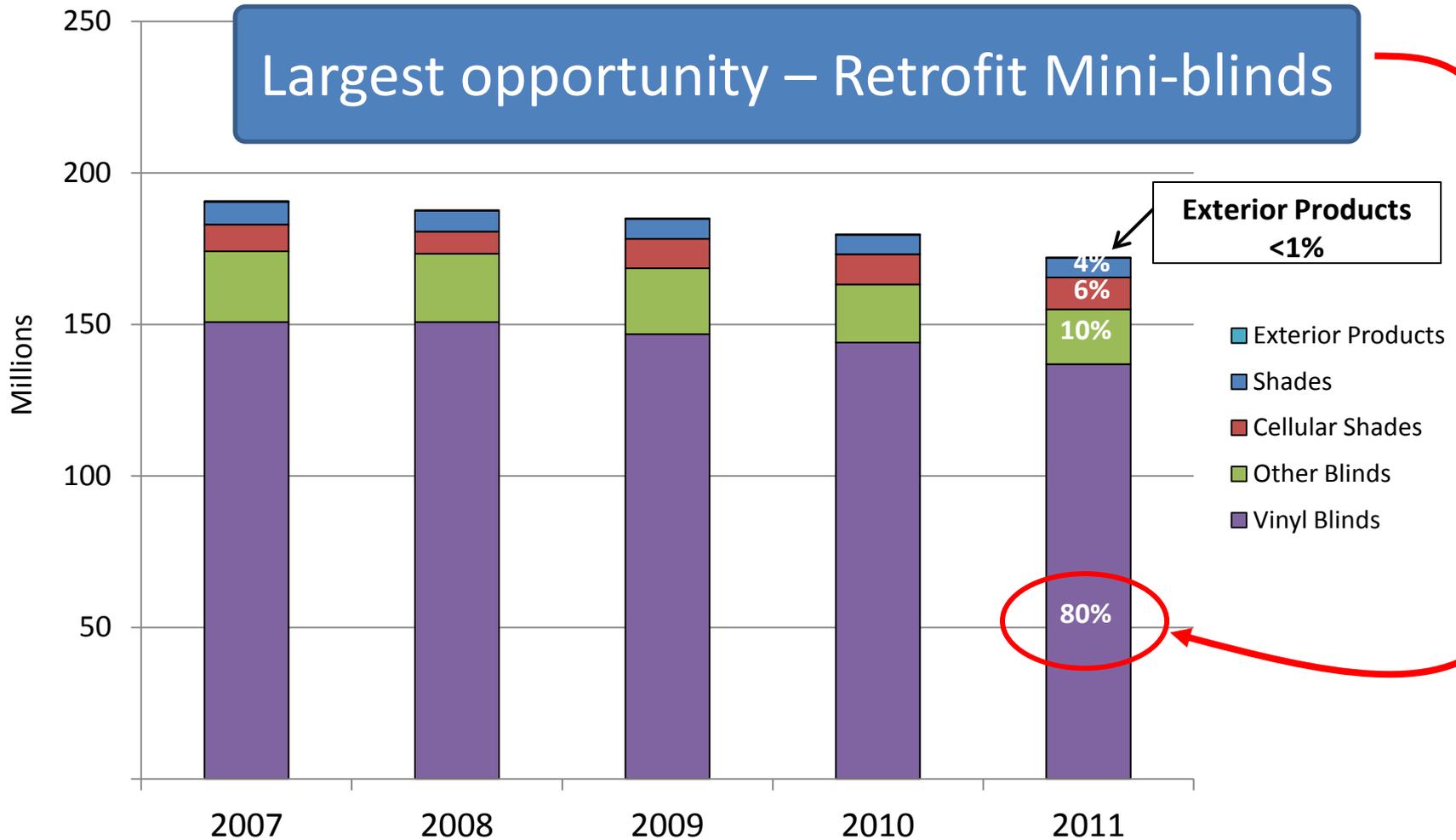
Which product types should we focus our efforts on first?

Proposed Product Phases

*Data source: D&R International

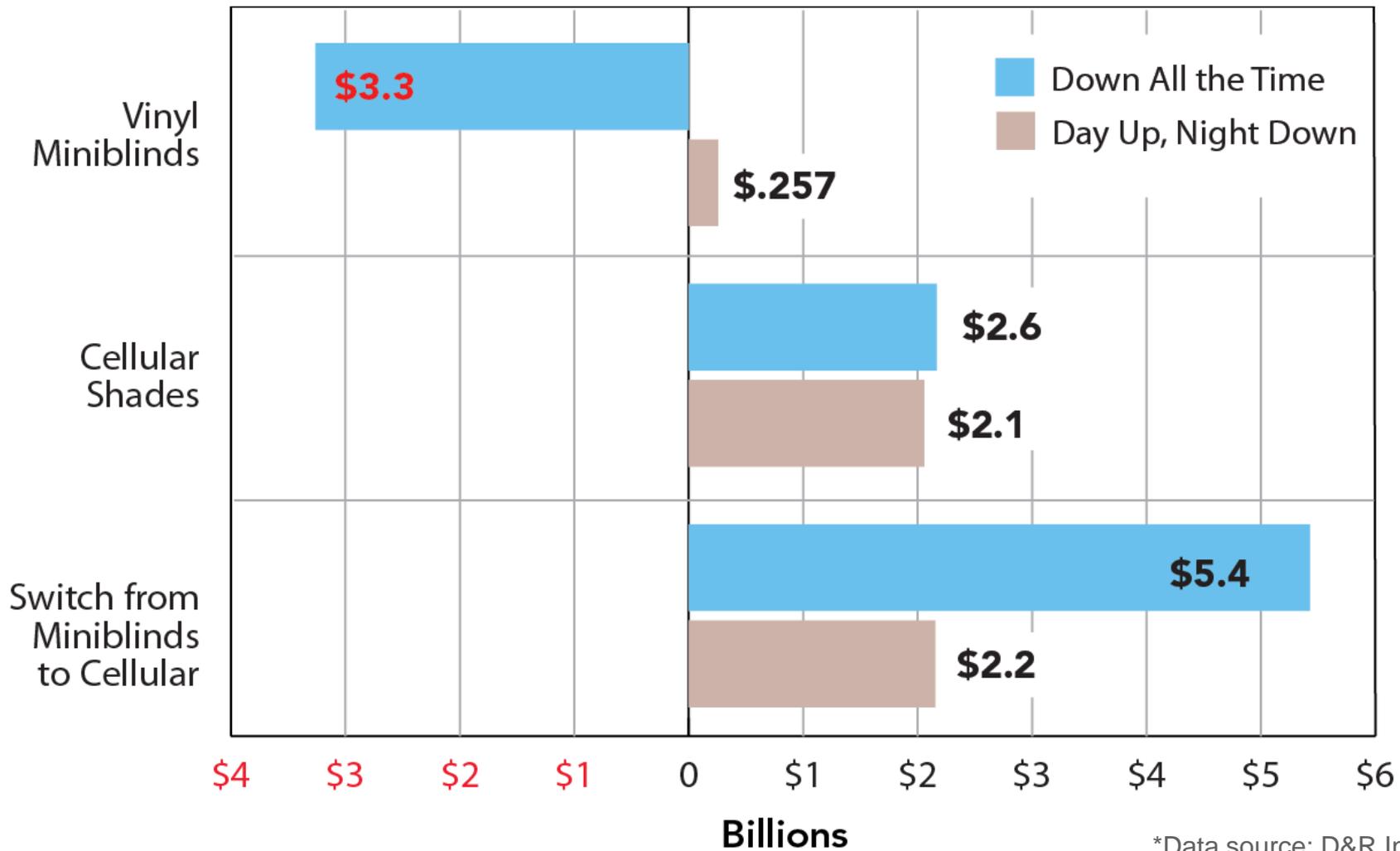
Phase	Product Type	Market Potential	Product Performance	Market Share*	Industry Interest	Technical Gap
1	Single Cell Cellular	High	Strong	≤6%	High	Medium
	Interior Horizontal Louvered Blinds	Low	Weak	80%	High	Low
2	Awnings	Medium	Strong	≤0.1%	High	High
	Complex Cellular	High	Strong	≤6%	High	High
	Interior Roller Shades	High	Medium	≤4%	High	Medium
	Exterior Roller Shades	Medium	Strong	≤0.1%	Medium	Low
	Exterior Roller Shutters	Medium	Strong	≤0.1%	High	High
3	Complex Awnings	Low	Strong	≤0.1%	Medium	High
	Exterior Louvered Blinds	Low	Strong	≤0.1%	Low	Medium
	Interior Vertical Louvered Blinds	High	Medium	≤5%	Medium	Medium
	Interior Shutters	High	Medium	≤1%	Medium	High
	Exterior Panel Shutters	Low	Strong	≤0.1%	Low	High

Annual Shipments*



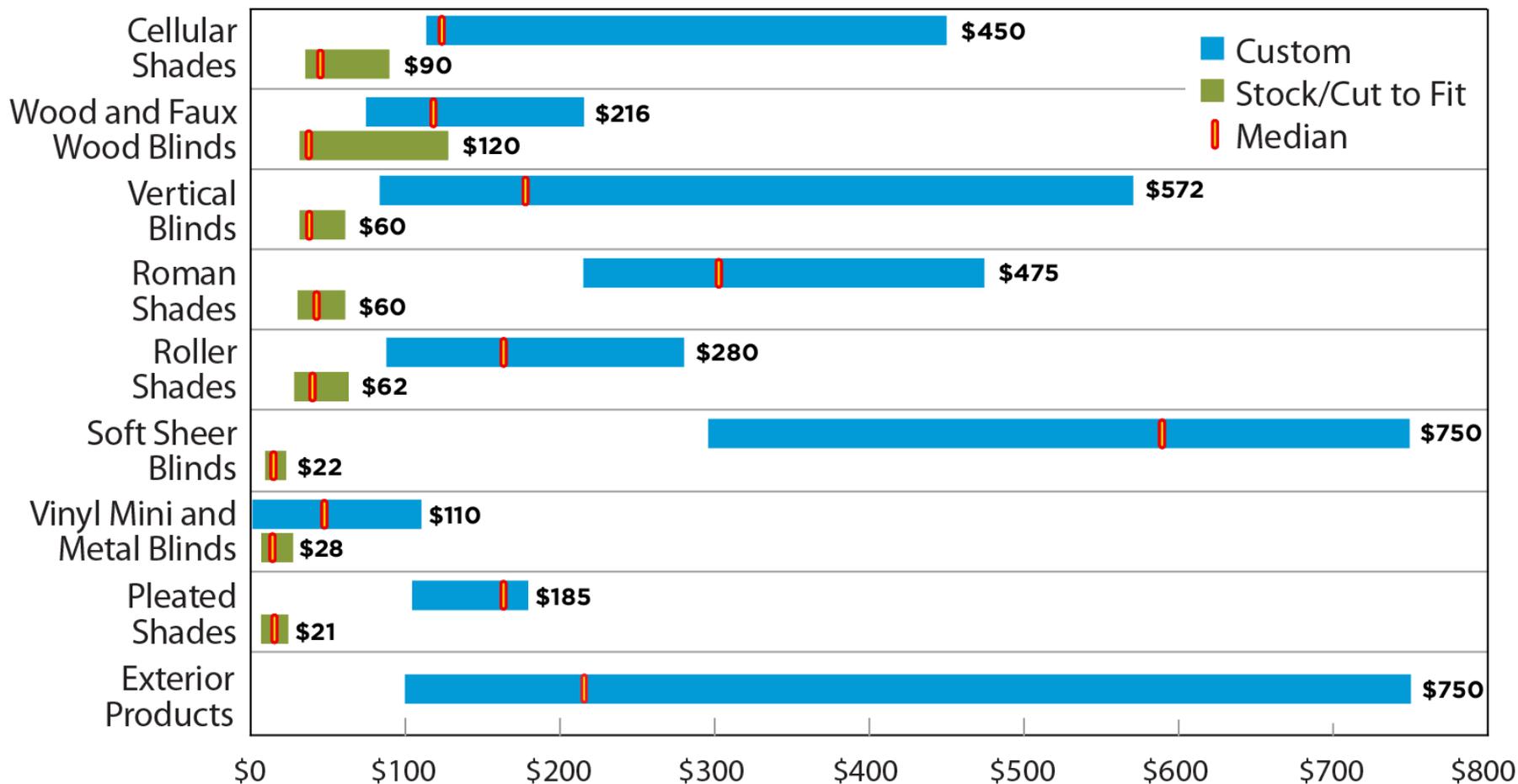
*Data source: D&R International

Vinyl Miniblinds Costing Consumers in Northern Zone



*Data source: D&R International

Product Pricing Ranges*



*Data source: D&R International

Summary

- WCMA in favor of technically valid program developed in stages
 - Focus on developing necessary components for minimum set of product types with high market share and energy savings potential first
 - Develop economically feasible performance assessment tools
 - Validated simulation programs
 - Test procedures
- Target date for phase 1 program: Jan 1, 2014
- Target date for phase 2 program: Jan 1, 2015