

Presentation to the Consortium for Energy Efficiency

**James C. Benney, CEO
National Fenestration Rating
Council**



Who is NFRC ?

Independent, non-profit
501(c)3 organization created,
to service the public good
through standards
development, education and
research.



**Fenestration defined as any openings in a
building envelope – such as windows,
doors & skylights.**



Introduction to NFRC

WINDOWS ARE RESPONSIBLE FOR 40% OF BUILDING ENERGY USE

WINDOWS CONSUME 4.7 QUADS OF ENERGY ANNUALLY

Mission: NFRC develops and administers energy-related rating and certification programs that serve the public by providing fair, accurate and credible information on fenestration performance.



NFRC Programs

 **Product Certification Program (PCP)**

 >750 participants

 **Laboratory Accreditation Program (LAP)**

 17 accredited labs

 **Certification and Inspection Agency Program (CAP)**

- 4 accredited IA's

 **Compliance Assurance and Monitoring Program**

Membership, Research, Educational, Int'l Programs



Products Rated by NFRC

- **Residential Windows, Patio Doors, Skylights and Entry Doors**
- **Commercial Windows, Doors, Skylights, Storefront and Curtain Wall systems**
- **Window Films (U-factor and SHGC)**
- **Dynamic Glazing**
- **Currently working on attachment ratings for:**
 - **Shades, blinds, storm windows and doors**
 - **Awnings**



Goal: Market Transformation

Encourage Technology Transfer

- Continuing Education (AIA-CES)
- Fact Sheets
- Electronic newsletters, blogs
- NFRC Certified Products Directory
 - > 5 million products



NFRC Standards

- NFRC 100* – U-factor
- NFRC 200* – Solar Heat Gain and Visible Transmittance
- NFRC 300 – Optical Properties
- NFRC 400 – Air Leakage
- NFRC 500 – Condensation Resistance
- Supporting test methods/documents

***NFRC 100, 200 referenced in the IECC and ASHRAE**



NFRC Label

(required for Energy Star®)

 <p>National Fenestration Rating Council®</p> <p>CERTIFIED</p>	<p>World's Best Window Co.</p> <p>Millennium 2000+ Vinyl-Clad Wood Frame Double Glazing • Argon Fill • Low E Product Type: Vertical Slider</p>
ENERGY PERFORMANCE RATINGS	
U-Factor (U.S./I-P) 0.35	Solar Heat Gain Coefficient 0.32
ADDITIONAL PERFORMANCE RATINGS	
Visible Transmittance 0.51	Air Leakage (U.S./I-P) 0.2
<p>Manufacturer stipulates that these ratings conform to applicable NFRC procedures for determining whole product performance. NFRC ratings are determined for a fixed set of environmental conditions and a specific product size. NFRC does not recommend any product and does not warrant the suitability of any product for any specific use. Consult manufacturer's literature for other product performance information.</p> <p>www.nfrc.org</p>	



Why Certified Ratings?

For the manufacturer:

- Baseline for determining product improvement
- Fair comparison between products
- Credibility with customers
- Ability to show compliance with codes/standards



Why Certified Ratings?

For the Energy Efficiency Program:

- Fair comparison between products
- Standardized communication of product performance (labels)
- Assurance of compliance with program requirements
- A permanent record of performance (the Certified Products Directory)



NFRC and CEE Goals in Common

- Verify compliance with voluntary programs
 - Assure DSM \$\$ are spent wisely
- Educating the Building Code Community
 - To improve energy code enforcement
- Educating the Public on Energy Efficiency
 - To encourage wise choices



NFRC and CEE Opportunities

- *Tap into* the Retrofit Market
 - Opportunity - 20 million windows!
- Encourage greater envelope energy efficiency in voluntary programs
 - LEED and Green Buildings
- Encourage energy efficient design in the architectural community - CMA



Concluding

- 1) Windows have a great impact on building energy performance.
- 2) CEE can depend upon NFRC for energy performance information related to fenestration products
- 3) NFRC and CEE have goals in common; let's explore where we can effect change.



Thank you

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www.nfrc.org

