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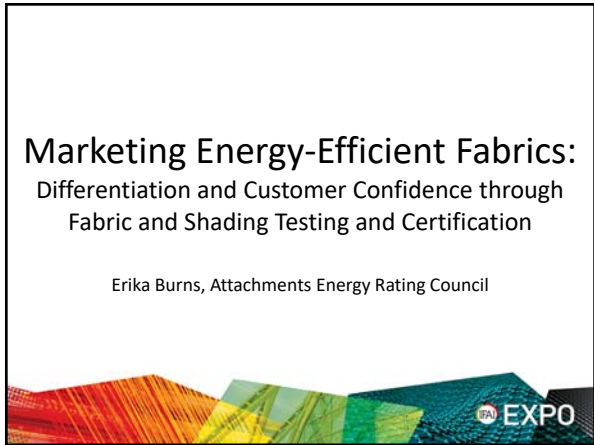
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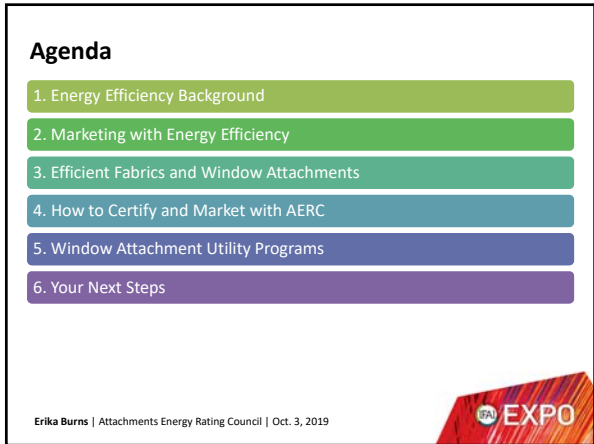
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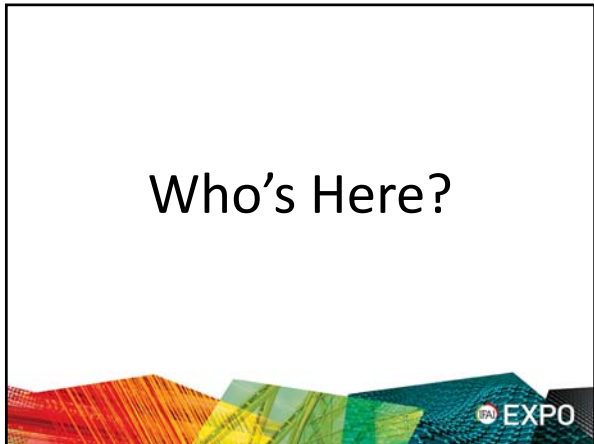
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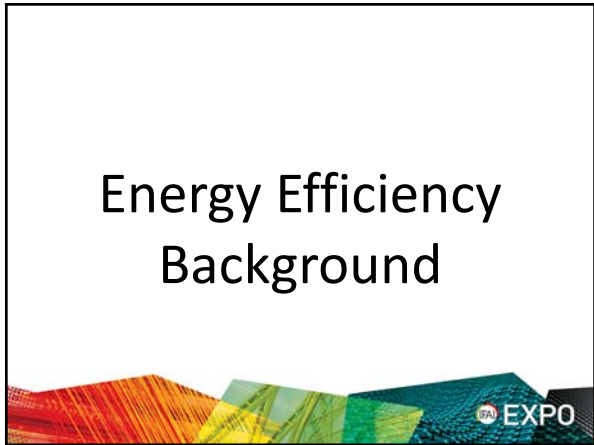
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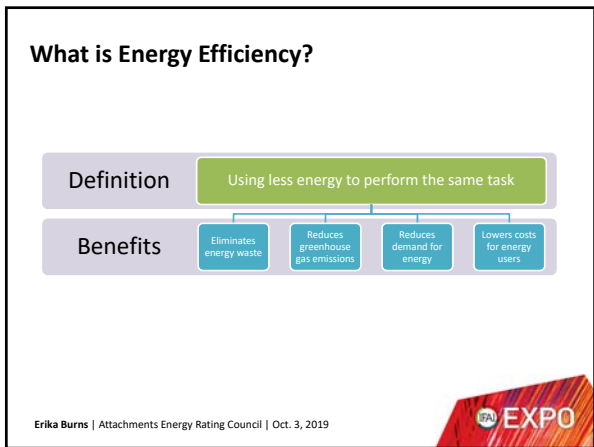
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### Who Cares?



Consumers      Utilities      Manufacturers/  
Industry

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### Consumers Care about Energy Efficiency



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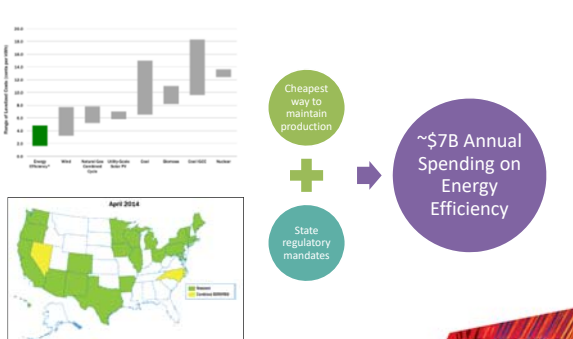
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### Utilities Care about Energy Efficiency



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### Industry Cares about Energy Efficiency



- Corporate social responsibility
- Sustainability commitments
- Product and facility certifications

Image Source: <https://www.expoexpo.com/Show/2014/07/21/How-green-are-your-certifications>

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## Marketing with Energy Efficiency



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### Energy Efficiency as a Marketing Strategy

Attract "green" customers	Forward company sustainability goals
Third-party product certification	Utility rebate programs

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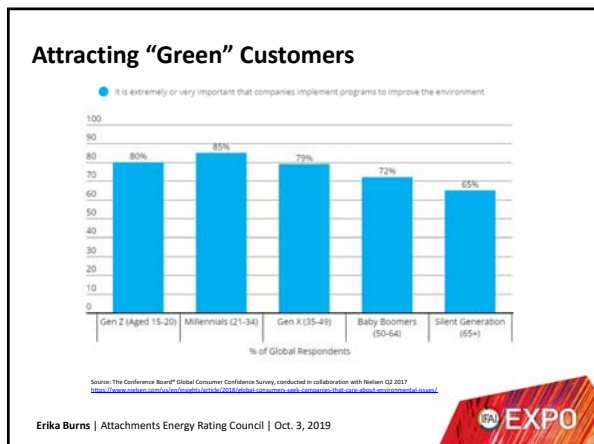
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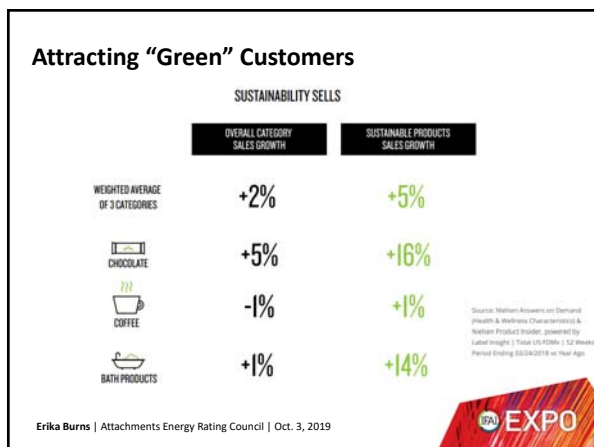
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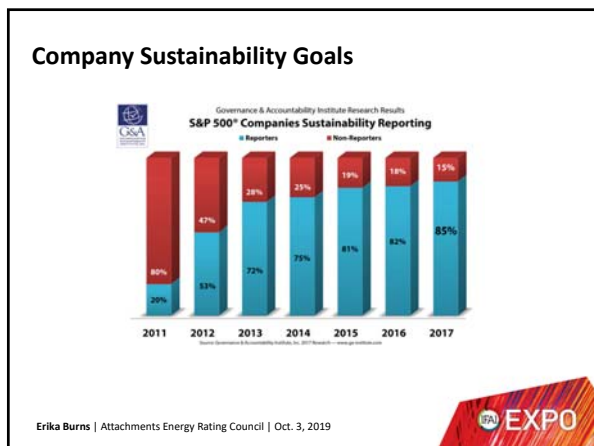
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### Third Party Certification Example: ENERGY STAR

ENERGY STAR® is the government-backed symbol for energy efficiency, providing simple, credible, and unbiased information that consumers and businesses rely on to make well-informed decisions.




More than 90% of American households recognize the ENERGY STAR.



More than 700 utilities, state and local governments, and nonprofits leverage ENERGY STAR in their efficiency programs, reaching roughly 95% of households in all 50 states.

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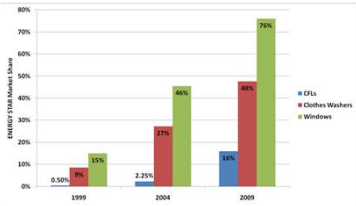
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### Case Study: ENERGY STAR Clothes Washers


Average Price of Non-Qualified Product	Average Price of ENERGY STAR Qualified Product	Average Price Difference
\$496	\$904	+\$408

Prices based on 2010-2011 information.



Year	CFLs	Clothes Washers	Windows
1999	0.56%	7%	11%
2004	2.75%	27%	46%
2009	14%	58%	79%

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### Utility Energy Efficiency Incentive Programs



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graph TD
    A[Mandated to acquire energy efficiency savings] --> B[Identify products that provide guaranteed energy savings]
    B --> C[Fund rebates and discount programs to encourage customers to buy energy efficient products]
    C --> D[Claim energy savings from programs to meet mandated savings goals]
    
```

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### Program Examples

**FREE MARKETING**

**APPLIANCE REBATES**

**Insulation Rebates**

Washers, Electric Heat Pump Water Heaters, Gas Water Heaters, Smart Thermostats

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EXPO

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## Efficient Fabrics and Window Attachments

EXPO

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### Energy Efficiency Opportunity

**64%** of U.S. homes have non-low-e single or double pane windows

Windows make up **30%** of a typical home's heating and cooling energy

Most household heat is lost through the windows and roof.

Only **2%** of U.S. homes replace their windows each year

**80 million** homes have inefficient windows

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EXPO

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### Energy-Saving Window Attachments + Fabrics

**Window attachments** can upgrade the performance of existing windows and save up to **13%** of a household's annual energy use.

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### The Attachments Energy Rating Council AERC

AERC is an independent, **public interest** organization whose mission is to provide consumers with **credible, relevant, and comparable** information about **window attachments** and their performance.

- AERC members include
  - U.S. Department of Energy
  - Public Interest Groups
  - National Labs
  - Commercial Labs
  - Product Manufacturers
  - Fabric Manufacturers
  - Utilities

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### What does AERC do?

Develop technical rating procedures for fabrics and window attachments	Administer the fabric and window attachment certification programs	Collaborate with DOE, national labs, and EPA
Pitch and plan utility energy efficiency programs	Represent AERC members at industry and energy efficiency conferences	Educate consumers and stakeholders about energy efficient window attachments

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### Why is AERC Necessary?

**Window attachments can save energy**

- Low consumer awareness of their energy-saving capability

**Consumers have no way to compare the energy performance of attachments**

**Utility energy efficiency programs require ratings and energy performance information**

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### AERC Energy Improvement Rating Label

**ENERGY IMPROVEMENT RATING**

**COOL CLIMATE RATING**

**96** /110

**WARM CLIMATE RATING**

**48** /55

**ENERGY IMPROVEMENT RATING**

**COOL CLIMATE RATING**

**NOT APPLICABLE FOR ENERGY IMPROVEMENT**

**WARM CLIMATE RATING**

**XX** /50

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### How to Read the Label

- Look for certified products with the AERC Rating Label.**  
Compare the different attachment improvement ratings to determine your savings.
- Identify your location:**  
COOL CLIMATE: Heating is turned on more frequently throughout the year.  
WARM CLIMATE: Air Conditioning is turned on more frequently throughout the year.
- Select your attachment type:**  
Certified interior and exterior products include:  
• Cellular shades • Blinds • Pleated shades  
• Slated shades • Roller shades • Solar screens
- Measure your energy savings:**  
COOL CLIMATE PERFORMANCE & COMFORT  
**96** Annual Energy Savings Per Window  
✓ Lower heating energy costs  
✓ Makes interiors warmer  
✓ Reflects warm air back inside  
✓ Eliminates chilly drafts  
WARM CLIMATE PERFORMANCE & COMFORT  
**47** Annual Energy Savings Per Window  
✓ Lowest cooling energy costs  
✓ Makes interiors cooler  
✓ Blocks solar heat gain  
✓ Prevents harsh sunlight & glare

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### AERC Certified Products Website

Visit AERCEnergyRating.org

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### Example AERC Certified Product

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### Products and Materials Eligible for Certification

Coming Soon: Awnings & Roller Shutters

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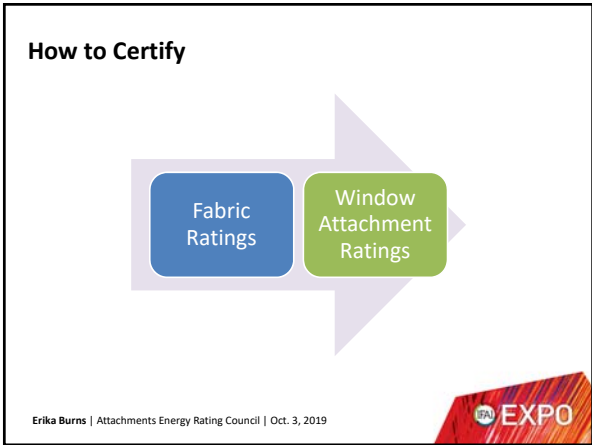
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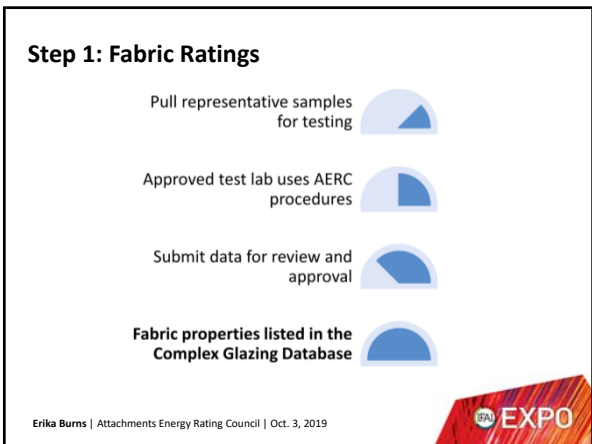
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### How to Market Fabrics with AERC

- Generate credible energy properties with scientific review**
  - AERC and Lawrence Berkeley National Lab lend credibility
  - Ratings data: thermal and optical properties (openness, emissivity, reflectance, transmittance, conductivity, etc.)
  - Validated data can be used in energy modeling for large projects
- Use AERC-provided marketing tools**
  - AERC Materials logo
  - Complex Glazing Database listings
  - Press releases
- Enable customers to certify window attachments through AERC**
  - Leverage utility rebate programs
  - Drive sales of high-value products through AERC certification

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### Cost of Fabric Ratings: 10 fabrics

Cost Category	Initial Cost Estimate	Ongoing costs
Testing by approved lab	\$3,250	\$0
Annual AERC participation fee	\$1,000	\$1,000
Submission review fee	\$2,100	\$0
Listing maintenance fee	\$0	\$700
<b>TOTAL</b>	<b>\$6,350</b>	<b>\$1,700</b>

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### Step 2: Window Attachment Certification

- Choose QA pathway for third-party review
- Approved simulator models product performance
- Submit ratings for review and approval
- Obtain AERC label and listing on Certified Products Website

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### How to Market Window Attachments with AERC

- Demonstrate energy savings with third-party validation**
  - AERC certification lends credibility
- Use AERC-provided marketing tools**
  - Energy Improvement Rating Label
  - Certified Products Website listings
  - Press releases
  - Consumer education materials
  - Energy ratings: Cool and Warm climate ratings, U-factor, Solar Heat Gain Coefficient, Visible Transmittance, and Air Leakage
- Leverage utility energy efficiency rebate programs to drive sales**
  - Programs require third-party ratings from a credible source like the AERC Certified Products Website
  - AERC has a network of utility contacts developing pilot window attachment programs

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### Cost of Window Attachment Certification: 50 products

Cost Category	Initial Cost Estimate	Ongoing costs
Simulation fees	\$2,000	\$0
Annual AERC participation and QA validation	\$8,380	\$8,380
Listing fees	\$1,750	\$1,750
Sales volume fee	\$300	\$300
<b>TOTAL</b>	<b>\$12,430</b>	<b>\$10,430</b>

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# Window Attachment Utility Programs



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### Utility Program Examples

Discounted up to 25% off retail price

Digital and print marketing

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### Utility-funded Marketing

- Branding and messaging of product benefits
- In-store displays
- Utility communications
- Digital marketing and social media ads

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### Pilot Results

Pilot (year)	Overall storm window sales increase	Low-E sales increase	Low-E market share
(2015)	37%	337%	2014 – 22% <b>2015 – 70%</b>
(2017)	9.6%	125%	2016 – 30% <b>2017 – 62%</b>

Approximately \$78,100 in additional revenue in 8 weeks in one city!

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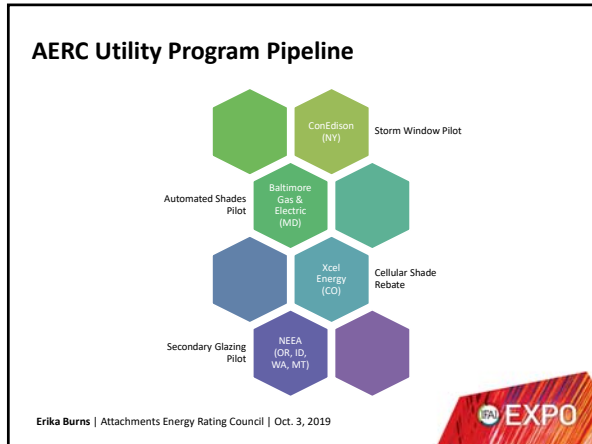
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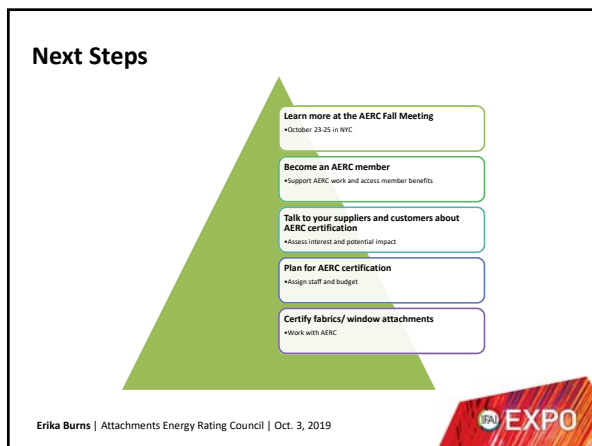
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