Window Attachments:

Utility Program Design Primer



Attachments Energy Rating Council

OVERVIEW

Window attachments represent a significant and untapped energy savings opportunity. The Attachments Energy Rating Council (AERC) <u>rating and certification program</u> provides credible, easily-accessible information on the energy performance of window attachment products. Utilities and consumers alike will be able to differentiate products based on their energy performance and identify the product that works best for them. This new rating system offers utilities the opportunity to add this up-and-coming measure to their program portfolios. This brief outlines the structure of successful retail window attachment pilot programs, effective marketing strategies, suggested program criteria, overall savings and cost-effectiveness, other program possibilities, and the challenges and lessons learned from previous pilots.

PROGRAM STRUCTURE

To create a retail incentive program that will achieve maximum savings and consumer acceptance, AERC recommends incorporating three key components:

- Incentives that achieve, or come close to achieving, price parity with standard, less-efficient products.
- Leverage retail, dealer, and manufacturer partnerships that maximize access to the targeted consumer base and in-store and digital marketing efforts.
- Educational components to engage consumer interest and raise awareness of the savings potential of products.

Incentive Levels

AERC recommends offering incentives that come close to achieving price parity with less efficient options. For pilot programs run by Efficiency Vermont and Focus on Energy in Wisconsin, low-emissivity (low-e) storm windows were marked down between 20% and 30% (approximately \$15-\$30) to create price parity with standard, non-low-e (clear glass) storm windows. The discount was applied to the product at the time of purchase and the incentive was paid upstream to the manufacturer. This approach can also be used for other product categories and programs. The AERC Energy Performance rating can be utilized by utilities to set a minimum efficiency level for incentives. For example, a cellular shade could be eligible for a \$25 off discount or a 15% markdown.

Marketing Your Pilot Program

Window attachment-focused pilots have found success through combining in-store and broader-reaching, digital marketing materials, including those listed below. Stack-outs used for storm windows helped create a highly visual presence in stores. In Vermont, locations with stack-outs had higher sales than those without.



Messaging: Results from pilots and consumer surveys show that consumers respond to the following messages about window attachments: Increased comfort (could be for heating or cooling), saving money and energy, and a complementary addition to existing windows. For storm windows, messaging has also highlighted that they can be a cost-effective alternative to window replacement under certain conditions. Consumers also respond to messaging that speaks to expected financial savings.

Training Sales Staff: In the Efficiency Vermont and Focus on Energy programs, training sales staff was an integral part of the pilots. Small pocket-sized cards were created for sales associates with key facts about the pilot with a list of eligible products that they could reference when speaking with customers. Ensuring that sales staff understand the product type and the benefits it can provide to consumers is important for a successful program.

Examples of marketing materials:

Flyer Content:



Social Media Posts:







Get 25% Off Now On Low-E Storm Windows! Click to learn more. FOCUSONENERGY.COM

Stack-out Graphics:



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Program Criteria

This is an opportune time to run a pilot program for window attachments as there are now resources for utilities to use to set product eligibility criteria and to help ensure products will perform as represented.

> **AERC** launched a rating and certification program for window attachment products that provides an Energy Performance (EP) metric for certified products, as well as U-factor, SHGC, Visual Transmittance and Air Leakage. Any product with an EP greater than zero is expected to provide a benefit to consumers. AERC recommends utilities require incentivized products be AERC certified to ensure performance information is accurate and to consider establishing a minimum EP value that will provide cost effective savings for consumers in their territory. AERC can provide utilities resources for making determinations about EP levels.



AERC

ENERGY STAR® released a draft specification for low-e storm windows, providing both brand recognition and verified energy savings to utilities and consumers. A final version of the specification will be released in the second half of 2018. AERC recommends that utility programs use the ENERGY STAR storm windows criteria as the basis for incentivizing storm windows. Additional information about the ENERGY STAR Storm Window criteria can be found on the ENERGY STAR website. AERC anticipates that additional window attachment products will be ENERGY STAR certified in the future.

Energy Savings and Cost-Effectiveness

Window attachments offer a cost-effective option for consumers. The energy savings to investment ratio of attachments is high – with some products having a payback period as short as two to three years and providing high energy savings over the considerably long lifetimes. The energy savings from different attachment types depends on a number of factors including climate: some attachment types offer greater savings in cooling-dominated climates, while others have a higher savings potential in heating-dominated climates. AERC developed annualized, whole-house dollar savings based on the Energy Performance for 16 U.S. cities. The following energy savings estimates showcase the maximum annual potential savings in each city:





Some attachments may be installed by the purchaser, which means that consumers do not have to pay to have them professionally installed, lowering the payback period. For more information on the savings potential for different attachment types and payback, please see AERC's **Efficiency Program Brief**.

Attributing Savings

Attributing savings for window attachment products involves a number of factors. For storm windows, there are three major groups:

- 1. Customers who were already interested in purchasing standard window attachments and, because of the utility incentive, purchased more efficient products
- 2. Customers who were not planning to purchase window attachments but chose to take advantage of the lower prices and purchase efficient products.
- 3. Customers who were considering full window replacement but were able to resolve window issues with a window attachment.

For other product categories, window attachments are not a substitute for full window replacement, but can substitute across product categories:

- 1. Customers who were already interested in purchasing standard window attachments and because of the utility incentive, purchased more efficient products.
- 2. Customers who were not planning to purchase window attachments but chose to take advantage of the lower prices and purchase efficient products.

For its pilot, Focus on Energy estimated that about 49% of the customers were category 1 and 51% were category 2. The customers considering full replacement windows are a subset of category 2 and made up about 42% of that category, or about 21% of the total demand, as shown below.

Share of Low-E Storm Window Sales by Customer Type



OTHER PROGRAM OPPORTUNITIES

While this program primer is primarily focused on building a retail channel utility program, AERC recommends that utilities consider incorporating window attachments into a variety of their program offerings. Window attachments can be utilized to achieve cost-effective energy savings for a number of consumer groups outside of retail channels including:

Multi-Family/Landlords

Window attachments represent a quick and cost-effective way for landlords to improve the energy efficiency, as well as the look and feel, of their properties and increase tenant comfort and satisfaction. Focus on Energy had a small multi-family outreach effort as part of its pilot.

Installation contractors

Window attachments, particularly storm windows, offer another opportunity to engage with trade allies and have them be at the forefront of promoting an energy efficient technology.

Low-income

Since window replacement is typically unaffordable in many low-income programs, window attachments are an opportunity to achieve energy savings at a fraction of the cost and greatly enhance resident comfort.

Do-it-Yourself consumer bases

Window attachments are primarily DIY installation, so represent an opportunity for utilities targeting that population.

Historical properties

Since many historical properties are prohibited from replacing their windows, window attachments, particularly low-e storm windows, are a great opportunity to maintain the property to historical requirements while improving its energy performance and comfort.

Smart Home Technology

New construction programs can work with window attachment manufacturers to have homes pre-wired for automated window attachments.



Multi-Family Marketing Flyer Utilized in the Focus on Energy Pilot Program

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RECOMMENDATIONS FROM LESSONS LEARNED

AERC suggests that utilities take into consideration the following when planning and implementing window attachment pilots or full programs, based on learnings from Efficiency Vermont and Focus on Energy:

- Allow plenty of lead time in the planning and outreach stages for pursuing multi-family buildings and customers. Purchasing timeframes tend to be much longer for multi-family owners and managers so a pilot of only two to three months may be insufficient to accommodate the multi-family market.
- Allow plenty of lead time to understand the deemed savings calculations for your service territory including assumptions around customer base, installation costs, and DIY/contractor splits since window attachments have unique features that create some added complexity.
- Ensure that retail partners have plenty of stock products on hand before the pilot launches.

Both <u>Efficiency Vermont</u> and <u>Focus on Energy</u> ran pilot programs for low-e storm windows and released reports outlining the scope, results, and lessons learned for their respective programs, which provide a great resource understanding pilot programs for window attachments from start to finish.

Window attachments represent a significant and untapped energy savings opportunity. We encourage you to explore adding this up-and-coming measure to your portfolio and we are here to help.

For more information on the AERC certification program, the energy savings opportunity, or to learn how to get involved, please visit **AERCnet.org** or email us at **info@aercnet.org**.