

Storm Window and Insulating Panel Campaign Fact Sheet

The U.S. Department of Energy is working with partners on new collaborative initiatives to accelerate the adoption of high-efficiency storm windows and insulated window panels, delivering energy savings and comfort in residential and commercial buildings at a fraction of the cost of full window replacements. To that end, the U.S. Department of Energy is launching the Storm Window and Insulating Panel (SWIP) Campaign to encourage building owners to upgrade old, inefficient single and double-pane clear glass windows with ENERGY STAR certified storm windows, or with Attachments Energy Rating Council (AERC)¹ rated insulated panels in residential and commercial buildings.

The SWIP Campaign will serve as a national platform for sharing information and recognizing successes with key stakeholders, including contractors and installers, energy-efficiency programs, commercial building owners, trainers, and others.

Older, inefficient windows waste energy and cost consumers and businesses millions of dollars every year in heating and cooling costs. Retrofitting these windows with window attachments or installing



new high-performance windows not only saves energy, but also improves indoor comfort. Storm windows and insulating panels are permanently attached to the interior or exterior of primary windows to provide year-round air sealing, thermal insulation, and other benefits including noise reduction at a fraction of the cost compared to full window replacements.

Storm windows are an affordable option for homes where full window replacement may not be feasible, such as lower-income households, multi-family households, households working with U.S. Department of Housing or weatherization programs, or households in historic preservation districts.

How it Works

The SWIP Campaign works with stakeholder partners, including utilities and efficiency groups, contractors, weatherization programs, energy service companies, product suppliers and manufacturers, trade and professional groups, program implementers, and others who support the SWIP Campaign's goals. The

SWIP Campaign serves as a national platform to host research and useful resources, including field demonstration results, case studies, and utility program best practices to recognize successes. Participants in the SWIP Campaign can be recognized for taking action to install high-efficiency storm windows and insulating window panels. In addition, they can be recognized for achieving innovative program approaches, impactful marketing campaigns, innovative training and educational resources, and more.

Why it is Important

Of the nearly 40 quadrillion Btus of primary energy used in residential and commercial buildings each year,² just over 40 percent is attributed to heating and cooling buildings. Over half U.S. homes have single-pane windows or double-pane clear glass windows, which are inherently inefficient and poor insulators, and about 40% of commercial buildings have single-pane windows. Field demonstration have confirmed year-round HVAC system energy reductions of 10-30 percent in homes with single-pane or double-pane clear glass

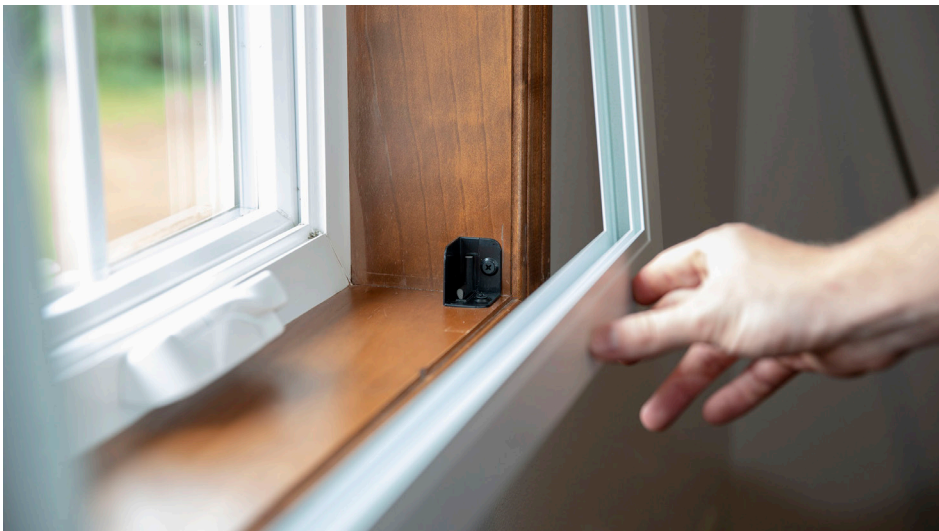
¹AERC certified product listings and energy improvement ratings available online at: <https://aercenergyrating.org/>

²“Primary Energy Consumption” EIA 2019 (<https://www.eia.gov/energyexplained/use-of-energy/>).

The U.S. Department of Energy estimates that if all single-pane and all double-pane clear glass windows in the U.S. were upgraded with insulating window panels, homeowners and businesses could collectively save over a quadrillion Btu of energy and \$20 billion per year.

windows. These savings compare to double-pane window replacement savings, but at the third of the cost and payback periods as low as 4 years. Installation is relatively easy, with 80 percent being do-it-yourself installations. Other benefits include added comfort, operability, acoustic improvements, and aesthetic appeal.

Similar benefits can be achieved in the commercial sector, where single-pane or double-pane clear glass windows are common in older buildings. In addition to energy savings at lower cost, building owners who upgrade their windows offer their employees and tenants improved comfort and other benefits.



How Partners Benefit

Participating in the campaign sets partners on a path to accomplish ambitious goals. Whether your goal is to reduce carbon emissions and overall energy consumption, to lower your most vulnerable stakeholders' energy burden, or increase the comfort of their homes, the campaign will make sure your project receives the recognition it deserves.

How to Get Involved

The SWIP Campaign invites diverse partners to participate in an inclusive effort to build the Storm Window and Insulating Panel platform to serve all Americans. We're specifically looking for existing case studies, best practices, and lessons learned related to storm windows and insulating panels. We will be seeking feedback on design components of the Campaign, including participation requirements, success metrics, and evaluation criteria for recognizing exemplary performance. Interested in participating? Please let us know! ■

To participate or learn more, email us at techchallenge@pnnl.gov.

Resource List

Energy Rated Certified Product Information

[ENERGY STAR Certified Storm Windows](#)

[AERC Certified Window Attachment Products](#)

Case Studies

[Secondary Window Inserts Perform Flawlessly at Carnegie Hall](#)

[Case Study: 400 Market Street](#)

[A Window Solution That Meets LEED and Preservation Requirements](#)

Research and Field Demonstrations

[Energy Savings of Low-E Storm windows and Panels Across US Climate Zones](#)

[Field Evaluation of Low-E Storm Windows, Lawrence Berkeley National Laboratory](#)

[Evaluation of Low-E Storm Windows in the PNNL Lab Homes](#)

[AERC Commercial Buildings Research](#)

[Low-E Storm Windows Gain Acceptance as a Home Weatherization Measure](#)

DOE Programs and Campaigns

[Better Buildings, Building Envelope Campaign](#)

[Federal Energy Management Program: Purchasing Energy-Efficient Residential Storm Windows](#)

[Partnership for Advanced Window Solutions \(PAWS\)](#)

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energy.gov/eere/femp

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