



Highly Insulating (R-5) Windows and Low-e Storm Windows Volume Purchase Program

A Great Program at the Right Time

Over the past year, the Department of Energy (DOE) Windows Volume Purchase (WVP) Program has drawn significant interest from the window industry, with more than 50 certified manufacturers currently offering products. This means builders, agencies and other volume buyers can now purchase energy-saving windows and low-e storm windows at lower prices. Public and private sector leaders have praised the Windows Volume Purchase Program for saving energy and money, creating jobs, and protecting the environment.

Successful Start

With new product availability at www.WindowsVolumePurchase.org, lowered prices and great manufacturer participation, the windows volume purchase program has been very successful.

Creating Jobs

"The transition away from fossil fuels is going to take some time, but over the last year and a half, we've already taken unprecedented action to jumpstart the clean energy industry. As we speak, old factories are reopening to produce wind turbines, people are going back to work installing energy-efficient windows, and small businesses are making solar panels."

– President Barack Obama

WVP Drives Down Prices

The WVP Program has seen success in bringing down prices of highly-efficient windows, as the average selling price of R-5 windows in the program is \$234. When compared to the average retail price of \$203 for a 5 ½ ft x 2 ½ ft vinyl framed, double-pane low-e double-hung R-3 window, the price premium for the R-5 windows sold through the program is averaging ~\$2.25 per sq.ft. At this price premium, R-5 windows can be very cost-effective, particularly in heating-dominated climates.

Browse and Purchase Windows from Certified Vendors

Customers can view a list of certified vendors and find links to their Web sites at www.WindowsVolumePurchase.org. Manufacturers are able to lower their prices at any time and add windows to expand their offerings.

Saving Money for Homeowners

"My husband and I wanted to replace our old wooden windows with some vinyl windows. We were doing some research and came across the R5 website... We looked at the windows and were very impressed. We then got with our contractor and had him purchase 17 R5 windows for our home. After the installation, we instantly felt more comfortable, as we did not have as much heat coming into our home as before. After the first month, we were also able to see a difference in our electric bill! We are extremely satisfied and feel the windows will pay for themselves in no time."

– R-5 Windows Customer, Philadelphia, PA

Energy-Efficient Windows Protect the Environment

Windows in the United States account for 30% of building heating and cooling energy use, representing about 4% of total primary U.S. energy consumption.

* The WVP Program requires U-factor in accordance with NFRC. DOE uses R-value to highlight the performance differences to a non-technical audience.

Save Money and Energy

More Savings than other Energy-

Efficient Windows: Switching to R-5 windows from cold and mixed climate ENERGY STAR windows reduces average heat loss through the window by 30%–40%. In a typical new 2,400 sq. ft. Massachusetts home, simulations show that R-5 windows save about \$100 per year, even compared to energy-efficient, code-compliant double-pane low-e windows.

Cut Heat Loss in Half:

Storm windows can reduce heat loss through windows by 25%–50%, and low-e storm windows can save even more. Microscopically thin coatings allow low-e glass to keep heat inside during the winter and outside during the summer.

A Chicago field study sponsored by DOE along with the U.S. Department of Housing and the Urban Development's PATH Program and industry partners found the following:

- Clear glass storm windows reduced whole house heating loads by 13% with a 10-year simple payback.
- Low-e storm windows reduced heating load by 20% with less than a 5-year simple payback.
- Reductions in summertime cooling requirements can also provide additional energy savings.

Serving Families and the Environment

"We applaud the Department of Energy's initiative to create a market for emerging promising technologies that will have immediate benefits for American families as well as for our nation's energy security and emission-reduction strategy."

– Wendy B. Jaehn, Executive Director, Midwest Energy Efficiency Alliance

Robust Interest from Public and Private Sectors

The WVP Program has generated strong interest from both the private and public sectors, aided by several initiatives:

- **The American Recovery and Reinvestment Act of 2009** – Allocates billions of dollars for energy efficiency and renewable energy programs
- **The Better Buildings Program** – Expands the home energy efficiency and retrofit market
- **The Energy Tax Credit** – Offers up to a \$1,500 tax credit for highly insulating windows
- **The HOMESTAR Program (under consideration)** – Would provide direct \$1,000–\$3,000 rebates at the point of sale for a variety of home energy-saving investments

More Advantages for Residential Buyers

Homeowners can lower lifetime energy costs, improve temperature uniformity and room comfort, and potentially enhance acoustic characteristics. Depending upon their structure, three-pane R-5 windows can moderately to significantly lower noise levels compared to standard two-pane windows.

The Pathway to Zero Energy Buildings

The DOE Building Technologies Program has embraced the strategic goal of developing net-zero-energy buildings to reduce national energy consumption. A net-zero-energy building is a residential or commercial building with greatly reduced needs for energy through efficiency gains (60%–70% less than conventional practice), with the balance of energy needs supplied by renewable technologies. Highly insulating windows are a key tool in achieving net-zero-energy buildings.



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Questions?

Please check out <http://www1.eere.energy.gov/buildings/windowsvolumepurchase/> for the latest WVP Program Information and www.WindowsVolumePurchase.org to browse and purchase window products. Please send your questions to R-5windows@energetics.com