ADVANCING WINDOW TECHNOLOGY: SAVING ENERGY IN OHIO

Over the past two years, the U.S. Department of Energy (DOE) has partnered with numerous state and local governments, window manufacturers, non-profits, and associations; partnerships that have been key to the success of the High Performance Windows Volume Purchase Program (WVP), a market transformation effort that allows potential buyers of high performance windows and storm windows to obtain bids from a consortium of qualified window vendors. Ohio has played a very important role in the program, as several participating window manufacturers make Ohio home. In addition, Ohio has partnered with the DOE to educate stakeholders about both the program, and the benefits of high performance windows.

In fact, on April 27, 2011 Ohio assisted the WVP team in executing the Ohio Windows Volume Purchase Workshop. Representatives from the State of Ohio, The Ohio State University, Green Energy Ohio, Ohio Home Builders Association, Mid-Ohio Regional Planning Commission, AEP Ohio, and the University Clean Energy Alliance of Ohio helped facilitate and plan the regional workshop at the Ohio State University. DOE has put on a series of workshops and webinars across the country for educating interested stakeholders, including stops in Oregon, Pennsylvania and Illinois.

Currently, there are 26 manufacturers participating in the program. The five companies headquartered in Ohio include Gilkey, Jeld-Wen, Soft-Lite, Champion, and Vinyl Kraft. These partnerships and manufacturer involvement show the commitment and dedication of Ohio to improve our national objective of improving energy efficiency through high performance windows.

Why are high performance windows so important to Ohio and to the rest of the country?
Buildings are responsible for about 40% of U.S. primary energy consumption, and windows play an important part in the design of a
moving from a typical energy star window to a high performance window will help cut the heat loss by 30% to 40%. for many years, high performance windows and low-E storm windows were considered “special order” products. today, through consumer education and manufacturer participation in programs like the WVP, high performance windows and low-E storm windows are more widely available and can achieve considerable cost savings on the nation’s energy bills.

there is no specific definition for high performance windows, but the term as it is used here corresponds to windows with a U-factor of around 0.2 or less. Typically these are triple pane windows with advanced features such as gas fills, advanced spacers, and low-E coatings. U-factor measures a window’s insulating abilities; the lower the U-factor, the less heat loss through the window.

high performance windows save the most energy in climates with significant heating needs. Ohio has a significant amount of heating degree days (HDD), with an average around 6121. A comparison of typical winter window heat loss across four sample cities can be also found in the graph above. More detailed savings estimates, including other locations and baseline windows, can be found at www.windowsvolumepurchase.org.

opportunity to buy high performance windows in volume

The WVP brings together buyers and industry partners to overcome the price barrier of high performance windows and low-E storm windows and to increase their widespread market commercialization for maximum energy savings. This program not only increases the availability of these products, but provides an explanation of benefits associated with these high performance products. Although highly insulating windows have been available for several years they have existed primarily as niche products that have been too expensive for widespread market adoption.

Phase I of the WVP was launched in May 2010, and Phase II of the program launched in May 2011. Phase II offers windows for commercial and residential buildings, and an expanded website that will make finding window products, prices and vendors easier. With a minimum order requirement of only 20 windows, buyers can select an appropriate window or low-E storm window from vendors who have met the requirements of the program. Buyers interested in pricing and specifying highly insulating windows simply need to access the website and begin their search.

“The WVP can offer significant energy efficiency at attractive prices that make them cost effective in heating-dominate climate zones,” said Graham Parker, the Pacific Northwest National Laboratory senior staff engineer who manages the program for DOE’s Building Technologies Program. “The high performance windows also qualify for federal and utility incentives and rebates being offered across the country.”

You can browse www.windowsvolumepurchase.org to find products, learn about these products, and compare prices. As stated, a new database format will allow for filtering by desired criteria, including window type and size, structural type and performance grade, and shipping region. In addition, external manufacturer links will be required to lead to program specific information. The WVP owes the state of Ohio a heartfelt thank you for their participation in the WVP.

For more information contact Jason Bogovich (jbogovich@energetics.com) with any questions or visit www1.eere.energy.gov/buildings/windowsvolumepurchase and www.windowsvolumepurchase.org

*HDD based on NOAA http://lwf.ncdc.noaa.gov/oa/documentlibrary/hcs/hcs.html and www.nrcc.cornell.edu/ced/nrmhdd.html