



WINDOWS

UPGRADING YOUR WINDOWS CAN INCREASE THE EFFICIENCY OF YOUR HOME

Did you know energy loss from drafty windows can account for approximately 10-25 percent of your energy costs? Upgrading to newer, more efficient windows can help you stay more comfortable, save energy and increase your home's market value.

Benefits of energy-efficient windows

- **Save money and energy.** By replacing your single-paned windows with energy-efficient windows, you can save on energy costs. The higher the efficiency ratings of your windows, the less your heating and cooling system will have to work.
- **Increase the comfort of your home.** High-efficiency windows can decrease drafts and air leaks, helping to make your home more comfortable.
- **Increase the market value of your home.** Updating your windows can add curb-appeal and value to your home, attracting buyers looking for energy-efficient homes.

Energy Trust can help

Cash incentives—To receive Energy Trust cash incentives for replacement windows, you must also install one of the following energy-efficient improvements: attic/ceiling insulation, wall insulation, floor insulation, boiler, heat pump, tankless water heater, duct sealing or air sealing. **Both improvements must be installed within 90 days of each other to qualify for incentives.**

Installation—To begin work, contact an Energy Trust Home Energy Solutions trade ally contractor, an Oregon Construction Contractors Board-licensed contractor, or any other contractor with a current Washington contractor's license to discuss and schedule installation. Washington customers heating their homes with natural gas from NW Natural are eligible to receive a windows incentive.

Trade allies are licensed, insured and trained on the latest energy-efficiency standards and offerings from Energy Trust. After work is completed, they can help you complete Energy Trust forms needed to get your cash incentives on qualifying improvements.



LOOKING FOR AFFORDABLE FINANCING?

GreenStreet Lending is brought to you by Energy Trust and Umpqua Bank (an Equal Housing Lender) and offers affordable financing for qualifying energy-saving improvements, such as window upgrades paired with another improvement.

What should I know about energy-efficient windows?

Efficiency ratings

The type of window you choose can impact your energy costs. Understanding the windows-rating system can assist you when purchasing the right windows for your home:

- **U-Value**—Measures heat flow through the window. Windows with a lower U-Value are better at maintaining comfort. Energy Trust incentives are applicable for windows with U-Values of 0.30 or less.
- **Solar Heat Gain Coefficient (SHGC)**—Indicates how much heat from sunlight passes through the window. The higher the SHGC, the more heat from the sun will pass through the window and into your home. SHGC is represented as a number between 0 and 1.
- **Visible Transmittance (VT)**—Indicates how much visible light passes through the window. A higher VT allows more light to pass through; however, a lower VT can reduce fading of rugs, furniture and hardwood floors. VT is represented as a number between 0 and 1.

Window features

There are many features to a window that, when combined, help determine its overall efficiency rating. Look for these common features when purchasing new windows:

1 Frame

The window frame supports the glass and hardware of a window unit. Frames can be made out of several materials, such as wood, aluminum, fiberglass or vinyl. Frames are hollow, solid or filled with insulating materials.

2 Glazing

A window's glass is also called glazing. Single-paned windows have one layer of glass; double-paned windows have two layers of glass and are more efficient. Triple-paned windows—three layers of glass—are even more efficient. The air sealed between the layers improves the window's efficiency by slowing heat.

3 Gas fillings and coatings

Gas fillings and coatings are often found in high-efficiency windows. To enhance your window's energy efficiency, dense gas—usually argon or krypton instead of air—is sealed between the inner and outer window layers. A low-emissivity (low-e) invisible coating also allows heat flow and is included in many new windows.

Windows Tip:

When shopping for new windows, look for a National Fenestration Rating Council label, which means that the window has been performance certified.

ENERGY PERFORMANCE RATINGS	
U-Factor (U.S./I-P)	Solar Heat Gain Coefficient
0.35	0.32
ADDITIONAL PERFORMANCE RATINGS	
Visible Transmittance	Air Leakage (U.S./I-P)
0.51	0.2
Condensation Resistance	
51	—

Manufacturer stipulates that these ratings conform to applicable NFRC procedures for determining whole product performance. NFRC ratings are determined for a fixed set of environmental conditions and a specific product size. NFRC does not warrant any product and does not warrant the suitability of any product for any specific use. Consult manufacturer's literature for other product performance information. www.nfrc.org

Example of a NFRC label, indicating U-Value, Solar Heat Gain Coefficient and Visible Transmittance.



For more information on Energy Trust cash incentives and qualifications and to find a contractor, visit www.energytrust.org or call 1.866.368.7878.