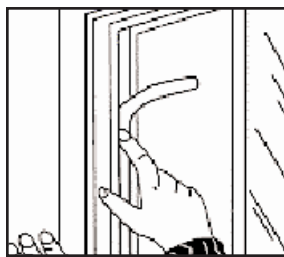
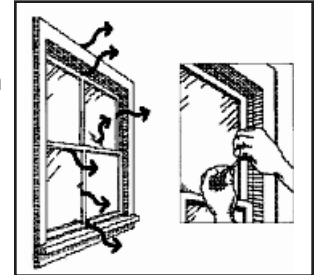


Windows and Doors

Windows bring light, warmth, and beauty into buildings and give a feeling of openness and space to living areas. They can also be major sources of heat loss in the winter and heat gain in the summer. However, when properly selected and installed, windows can help minimize a home's heating, cooling, and lighting costs. This fact sheet will provide you with information on how to select, install, and maintain windows and doors that will help reduce your heating, cooling, and lighting costs.

Controlling Air Leaks

When air leaks around windows, energy is wasted. Energy is also transferred through the centers, edges, and frames of windows. Eliminating or reducing these paths of heat flow can greatly improve the energy efficiency of windows and, ultimately, of homes. Several options are available to reduce air leaks around windows and doors. The least expensive options are caulking and weather-stripping.



Caulking and Weather-Stripping

Caulks are airtight compounds (usually latex or silicone) that fill cracks and holes. Before applying new caulk, old caulk or paint residue remaining around a window should be removed using a putty knife, stiff brush, or special solvent. After old caulk is removed, new caulk can then be applied to all joints in the window frame and the joint between the frame and the wall. The best time to apply caulk is during dry weather when the outdoor temperature is above 45° Fahrenheit (7.2° Celsius). Weather-stripping is a narrow piece of metal, vinyl, rubber, felt, or foam that seals the contact area between the fixed and movable sections of a window joint. It should be applied between the sash and the frame, but should not interfere with the operation of the window.

Additional Options for Reducing Heat Loss and Gain through Windows

Movable insulation, such as insulating shades, shutters, and drapes, can be applied on the inside of windows to reduce heat loss in the winter and heat gain in the summer. Shading devices, such as awnings, exterior shutters, or screens, can be used to reduce unwanted heat gain in the summer. In most cases, these window treatments are more cost-effective than energy-efficient window replacements and should be considered first.

Thermal Doors

Heat loss can be minimized in several ways depending on the types of doors installed. A wood door can be improved by adding a quality storm door. If a storm door is not an option, an insulated metal door is the next best scenario. Insulated metal doors usually have fiberglass or rigid foam cores. They are more durable than wood and provide better security. When shopping for a door, look for information on the R-value. The higher the R-value, the greater the insulating value, comfort, and energy savings.

Conclusion

Reducing heat loss or gain in homes often includes either improving or replacing existing windows. Low-cost options available for improvement are caulking, weather-stripping, retrofit window films, and window treatments. Replacing windows will involve the purchase of new materials, which should adhere to certain energy efficiency standards.

If you would like additional energy savings tips, please see our energy efficiency section at www.vectren.com or contact us by e-mail at marketinginfo@vectren.com.