Affordable Options for Drafty Windows

Q: *Our home is old and has the original windows. The windows let in cold drafts during the winter, and some of the rooms seem to overheat in summer. We like the look of the older windows, and replacing them with new ones is so expensive. Can you offer any solutions?*

A: Windows are an important contributor to the efficiency and comfort of your home. But replacing windows is costly. It could take 20 years of energy savings to recover the investment.

Luckily, you can make significant improvements to your existing windows without investing a large amount of money or time.

To address heat loss during the winter and heat gain during the summer, we will start with the window itself. Energy loss and drafts often occur in the cracks between the components of the window. Weatherstripping can be used for areas where a window's movable parts meet the window frame. Retailers offer a variety of weatherstripping for different types of windows. These materials are low-cost, easy to apply and can pay for themselves in energy savings in as little as a year. Ask your local retailer for guidance.

The seam between the window frame and the wall is another common source of air leakage. Fill any crack less than ¼-inch wide with caulk. For anything larger, use expanding foam and paint over it. Be sure to follow the manufacturer's instructions.

If the window pane is loose, or the glass is cracked or missing, it is probably costing you additional money. Re-glaze the window yourself if you are handy, or take it to a local repair shop.

Installing exterior or interior storm windows can sometimes be as effective as a full replacement. You can order these windows to the exact size of your window opening. Recent testing by a national laboratory showed storm windows can cut heating costs 7 to 12 percent.

Another strategy is to use window coverings. There are many types, including interior roller shades, cellular shades and draperies. Recent laboratory tests showed cellular shades can cut heating or cooling expenses by 10 to 16 percent.

Cellular shades can be bought with a lighter reflective side and a darker, heat-absorbing side. Some can even be reversed with the change of seasons.

Draperies usually are less efficient, but can also provide a level of comfort during winter and summer months. For maximum effect, make sure they overlap in the middle, are as tight to the window and wall as possible, and reach the floor.

The key to reducing heat in the summer is to keep the sun's rays from reaching the window by installing awnings or overhangs above windows that receive a lot of direct sunlight. Window films that adhere to the window surface can reflect unwanted summer sun. Solar screens designed to block the summer sun also can be effective.

If you are on a tight budget, or there are windows in vacant rooms you do not use, you can fasten plywood onto the frame on the outside of the house and cover the inside with rigid foam insulation. Another low-cost measure for these areas that can produce as much savings as storm windows is to fashion a plastic weather barrier that adheres to the frame. Building supply retailers sell clear plastic and framing material that can be shrunk into place with a hair dryer.

To learn more about improving the efficiency of older windows, visit www.energystar.gov or www.energy.gov. You may also want to check with your electric utility, as many offer incentives and are knowledgeable about local suppliers and contractors. ■

This column was co-written by Pat Keegan and Brad Thiessen of Collaborative Efficiency. For more information, visit www.collaborativeefficiency.com/energytips.

Interior storm windows allow you to keep your old windows, yet still achieve state-of-the-art efficiency and comfort.

Photo courtesy of Innerglass Window Systems

To ask a question, send an email to **Patrick Keegan** at energytips@collaborativeefficiency.com.