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Monday, 11 March 2013 15:56

Air that leaks through the ceiling, walls, foundation, and other areas—known as air infiltration—is a significant source of heating and cooling losses in a home—up to one third in a typical house. Stopping air leaks is the best way to conserve energy, save money, and increase comfort.

Typically, air infiltration causes drafts and a chilly feeling near windows and doors and in basements. Adjusting your thermostat will not stop the drafts, but sealing hidden cracks and openings will. By stopping air leaks, you will stay warmer in the winter and cooler in the summer, use less fuel, and reduce your utility bills. It will also help prevent ice dams.

Before building science demonstrated the role that air leaks play in energy loss, most people assumed that insulation was enough to stop heat flow through a building. Although insulation slows heat transfer, it is easily compromised by air flow, whether driven by outside wind conditions or convection currents within the building. The only way to stop this air movement—and associated heat loss—is by eliminating the holes between the inside of the house and the outside. Therefore, sealing air leaks *must* be part of any insulation job. Air sealing can be done by any qualified insulation contractor.

The process of sealing air leaks requires a careful inspection of your home—via a **home energy assessment**
using infrared camera scans to locate air leaks—and some inexpensive weather-stripping, caulking, and filler materials. Wires, pipes, and ducts that enter the attic must have caulking or foam sealant applied. Doors and windows need tight weather-stripping and caulking, and wall penetrations (faucets, wires) need to be sealed or caulked, too. And sealing joints in duct work with approved foil tape or mastic can increase the efficiency of your heating and cooling systems.

For more information on sealing air leaks, check out pages 7-18 of the Division of Energy Resources' "**Home Envelope**" energy guide.