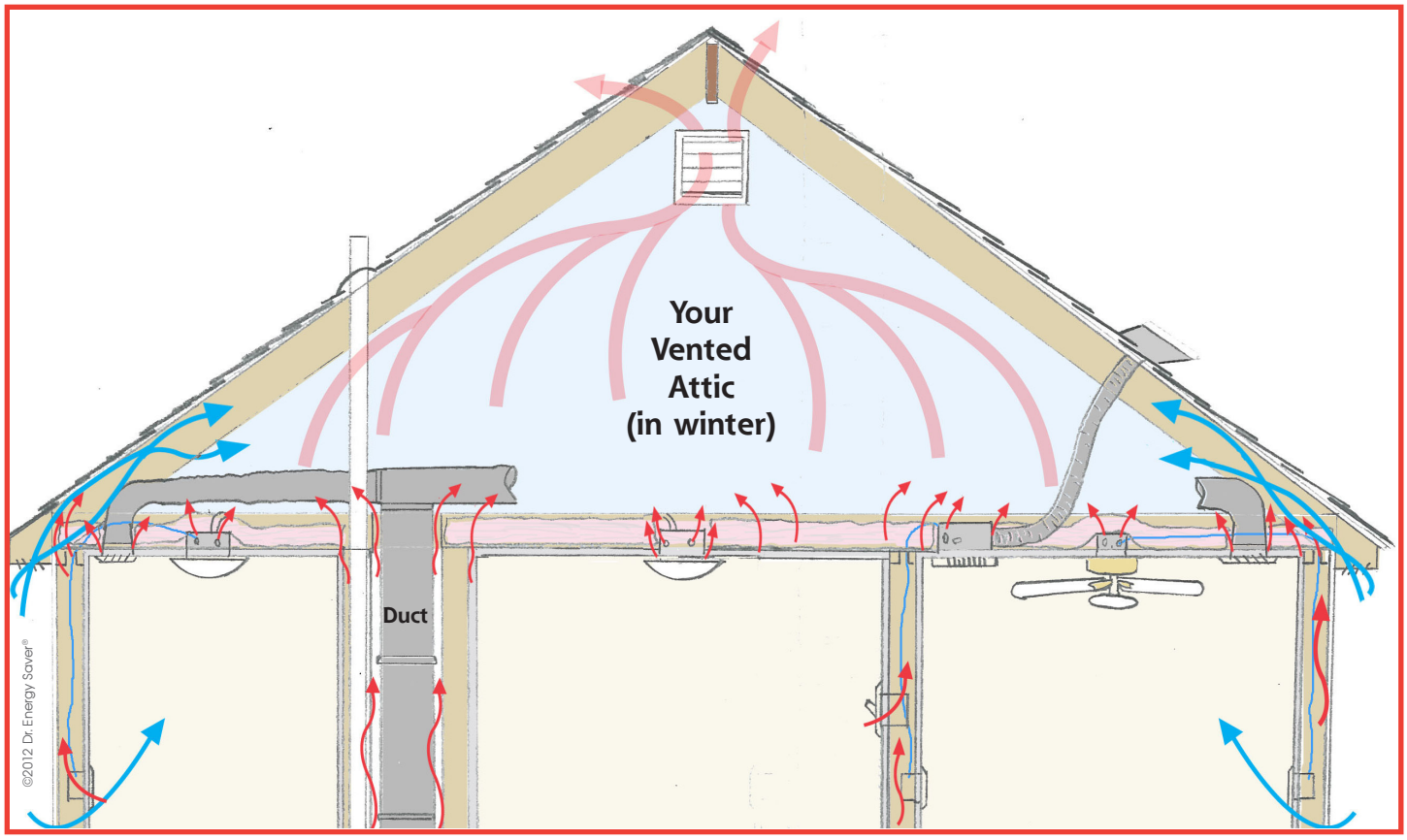
Dr. ENERGY saver® HOME SERVICES
Live Comfortably & Efficiently™

Problem Building Assembly #A1-1

Air Leaks at the Top of a Home with a Poorly Insulated Attic

THE PROBLEM



Since attics are vented, we should think of them thermally as **outside in the winter**. In summer because of the suns radiant heat, they are much worse than outside, **reaching 130˚** on summer days. Clearly, we need to keep an absolute boundary between our living space and the attic so inside air doesn't move to the attic in the heating season (convection), and heat doesn't pass up through our ceilings in winter (conduction), and down from our ceilings in the hot summer (conduction, radiation). To reduce overall air leakage, the attic is the first priority because warm air rises to the top of the house and finds any and all holes to leak out into the cold vented attic and is lost. Holes, gaps and joints include between drywall and framing at the top of walls, around pipes, wires, electric boxes, fixtures, duct, penetrations, ceiling grilles and joints in framing. And the only reason cold air leaks in from the outside at the lower levels of the house, is that warm air leaked out of the top and created a suction at the bottom. Attics are dramatically under-insulated compared to today's standards.

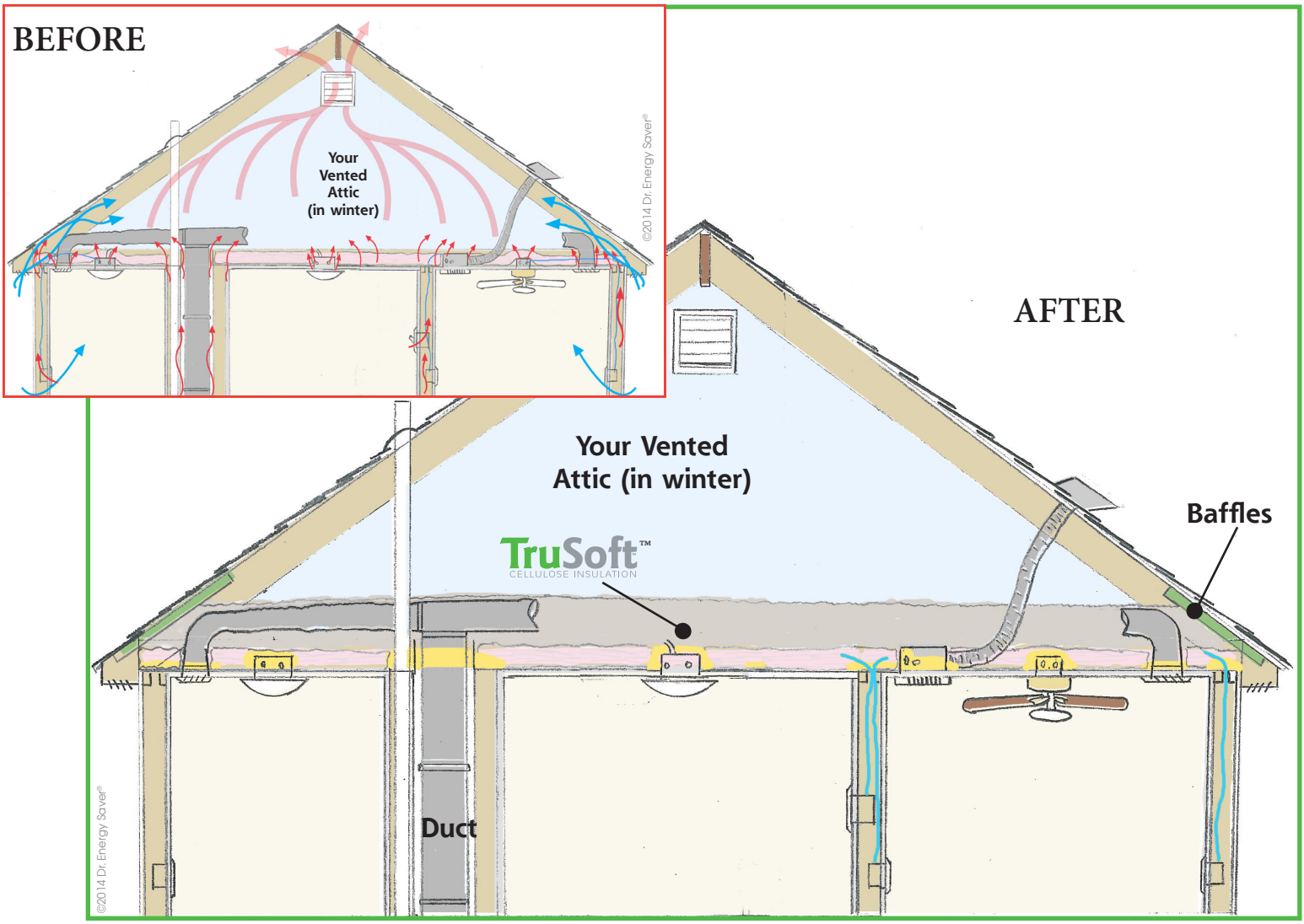
Result - cold drafty rooms downstairs, colder floors, house is harder to heat and keep comfortable, higher fuel and electric bills.

SOLUTION →

Unit of Measure - Square feet of attic floor to air seal, board feet of blown cellulose

DR. ENERGY SAVER® SOLUTION

Seal leaks in attic floor and insulate with TruSoft CELLULOSE INSULATION Cellulose Insulation



Adding insulation in an attic without sealing all air leaks first should never be done, because you are burying air leaks and making them impossible to seal later - and insulation DOES NOT STOP air leaks. That's why Dr. Energy Saver first carefully air seals the many various points where air from your home leaks up into your attic and is lost. We use expanding foam, boards, caulk, and metal flashing and fire caulk around your masonry or metal chimney as appropriate. If necessary, baffles (air chutes) are installed in each rafter bay to keep soffit vents clear and prepare for insulation. Finally, our premium TruSoft™ cellulose insulation is blown to the optimum R-value (typically R60). TruSoft™ will not burn, get moldy, or attract pests. Blown insulation fills all gaps and odd shaped voids, and by filling over framing members, "thermal bridging" is avoided.

Results - a warmer, more comfortable, less drafty house that you'll notice everywhere - even downstairs! House is quieter. Fuel and electric bills are lower.

Notes: hatch, can light and fan covers, chimney wrapping and sealing, insulated storage decks and duct sealing and insulation are also our specialties and if needed are explained on different Building Assembly Solution brochures.