

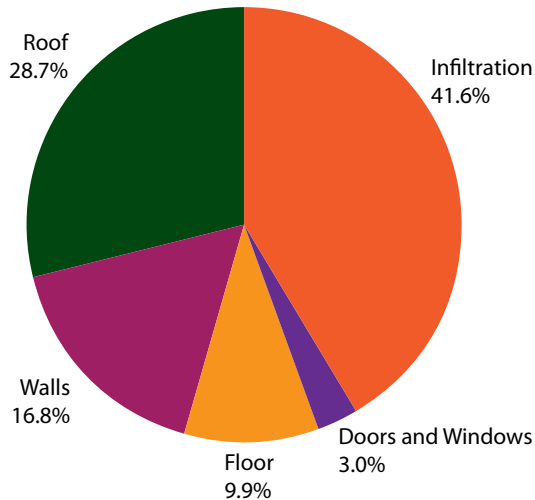
Are Your Energy Costs Going Through the Roof?

Heating And Cooling Losses Through Your Building's Exterior Could Be the Cause.

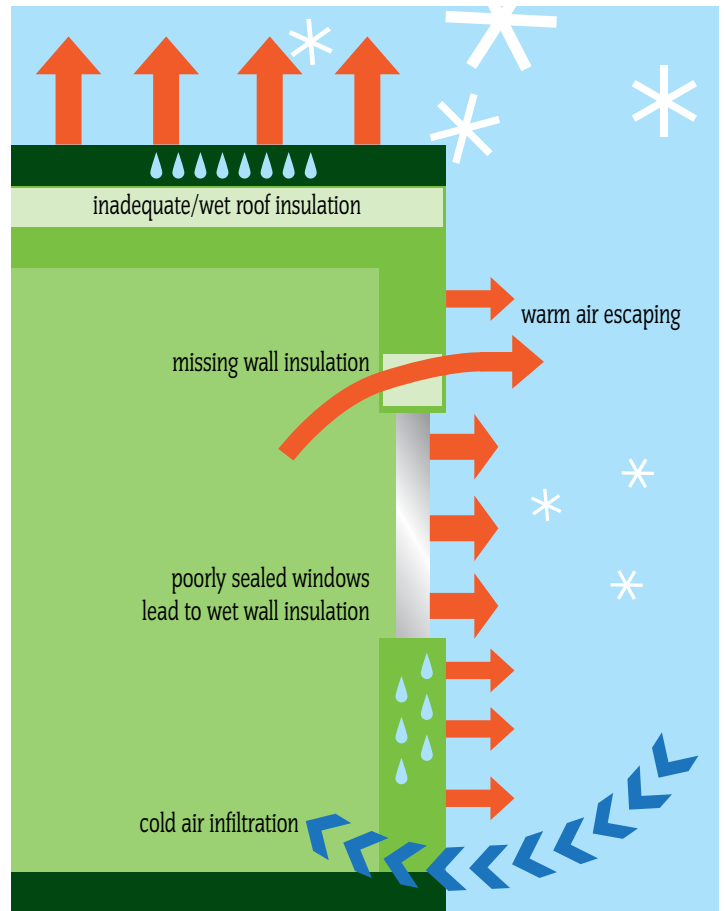
Think of your building as living, breathing thing. The heating, ventilation and air conditioning (HVAC) system are the lungs of the building and should deliver fresh, temperate air to building occupants for their health and safety. The building envelope (or skin) including roofing, windows, exterior walls, and foundations should not let conditioned air leak out and should prevent infiltration of water and outdoor air.

Sealing the building envelope tightly will prevent your HVAC system from working overtime against infiltration, to maintain a consistent indoor temperature.

The chart below shows where most building envelop energy losses occur.



See other side for suggestions to improve your building envelope.



When considering either new construction or improvements to an existing building envelope, consider the following:

	New Construction	Retrofit
Foundation A sound foundation can reduce potential energy loss.	Use insulated block foundation walls and take termite and moisture control measures to preserve the foundation long term	Install drainage systems to eliminate any standing water that may be degrading the foundation Caulk and spray foam insulation along seams between basement walls and the first floor Have inspections done regularly by a professional
Exterior Walls	Insulate walls with at least an R-18 insulation that correlates with Kentucky's climate Seal exterior wall penetrations by caulking along holes that are 1/8" in diameter and using spray foam to seal larger holes up to 3" Install thermal breaks to provide a layer of insulation that will resist heat flow through thermal bridging	Install insulation if possible Seal exterior wall penetrations by caulking along seams that are 1/8" in diameter and using spray foam to seal larger holes up to 3" When replacing siding, consider installing exterior foam sheathing to prevent thermal bridging Install dampers for vents Use insulated covers for outlets and light switches
Roofing	Choose materials that have reflective qualities to reduce the impact of summer sun Use materials that also resist moisture and standing water Install radiant barrier along rafters When installing roofing materials, add roof insulation that correlates with Kentucky's climate; R-value of 38 or higher is recommended	When making roofing improvements, consider adding roof insulation that correlates with Kentucky's climate; R-value of 38 or higher is recommended Do not block soffits that enable the attic space to ventilate the space Install radiant barrier along rafters
Windows and Doors	Look for double pane windows that have low conductive framing and have a U-value of 0.32 or lower Weather-strip and seal areas including trim around windows, floor boards, doors and glass panes Use vegetative shading options or architectural features that shade walls in areas that are exposed to sun throughout the day	Weather-strip and seal areas including trim around windows, floor boards, doors and glass panes Place gaskets and latches on all operable windows to close them tightly Shade windows during sunny, hot weather to prevent unwanted heat gain In winter, capture the warmth of the sun by opening window shades on the southern and western sides of the building Install pulley covers (for old sash windows)