Is Your Garage a Secret Money Pit?

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If it is attached to your house with one or more common walls, in warm climate, it probably is, at least from an energy standpoint.

Let's take a closer look at at typical 1500 square foot house with an nominal heating/AC energy cost of about $1,000 a year. The heating/AC portion typically runs about 40% of the total. That means when you save, say 25% of your heating/cooling cost, you are saving 25% of that 40%, which represents 10% of the total. That's one reason why people get confused about how much they actually save on their monthly bill after spending a bunch of money on energy improvements. Increasing energy costs also skew the numbers, so if you want to see the actual results, always compare actual energy units like kw-hrs used, not dollars.

Outside wall energy losses account for about 12%, which only changes with the weather. Aluminum frame, single pane windows will account for about 20% of the energy loss. By upgrading to vinyl double pane windows you could save as much as 12% of that 40% which amounts to about $120 a year, but comes with a noticeable expense. It is worthwhile in the long run, but perhaps not your first priority. The amount of window area you have facing the sun will also modify your numbers.

The biggest leverage comes from proper attic ventilation. You can't have too much. Since the driving force in heat loss is the temperature differential between two areas, the simplest and least expensive way is to cool your attic. Typical attics can reach temperatures higher than 140 F on a hot day. Effective natural ventilation can drop that temperature well below 120 F, seriously reducing your energy losses.

For our hypothetical house, just improving attic ventilation can save as much as $230 a year in AC costs. We can add enough insulation to go from the typical R-11 to R-30 and save another $250 a year. Keep in mind these are savings that keep on working, year after year without further effort. As energy prices continue to go up, the savings are multiplied even more. For a larger house, the numbers are proportionately bigger.

How warm is your garage on a hot day? Most attached garages are real ovens, especially since there is no insulation to speak of in the ceiling and they are exposed to those hot attic temperatures. It is very uncomfortable to be in a hot garage, so we stay out and give it little thought.

Those interior side walls only have R-11 insulation and when you increase the temperature differential between the inside and the garage, you increase the heat flow. That hot garage is costing you money. Even if you improve your attic ventilation and drop the temperature down to 120 F for a 90 degree day, heat loss is still a lot. In fact, if you were to drop the temperature in your garage to close to the outside temperature you could save as much as $100 each year. For big spenders that may not seem like much, but it still a lot of beer. Bigger garages will save even more.

How can you accomplish this magic? Simple, install R-11 insulation batts over the garage ceiling. You will get a one year pay out, or less that keeps on putting money back in your pocket for the rest of your time in that house. If your garage door faces sunlight, it too, can benefit from insulation to keep it from becoming a radiant heater fueled by the sun. Put some Styrofoam panels in the door and enjoy the improved comfort along with some extra energy savings.

Do you have one of those poor little refrigeration appliances hiding in your garage? There's another money pit. It's probably an older unit, so operates far less efficiently than newer ones. When was the last time you cleaned all the lint and dust off the heat exchanger coils? Add the insult of making it work in the hot-box garage and you have another expense far greater than you imagined. You could be spending more than $250 a year for operating that beast in those inhospitable conditions.

There is much involved in assessing the energy usage of a home, but this can give you a few ideas of where to look for significant savings and improve the quality of your life. Larger homes will have larger numbers and have even greater opportunities for savings. If your energy bills are much higher than these, perhaps you could benefit from an energy inspection.

Every home needs an inspection, even new ones.

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