Jan 1, 76

Fred

CONGRESSMAN TSONGAS REPORTS

ENERGY-SAVING HOME IMPROVEMENTS...
..IS IT WORTH YOUR TIME AND MONEY?

This is the time of year when a look at the monthly fuel bill can ruin your entire winter. This is a difficult burden for homeowners. Unfortunately, it does not appear likely that the situation will improve in the next few years. The fact is that our energy problems will become increasingly acute. This will mean even higher prices until alternative energy sources can be developed. This is why energy conservation is so important to the nation and, economically, to the homeowner.

This week's column provides a series of charts which you can fill out to determine potential cost and savings of energy-saving home improvements.

WILL THE INVESTMENT PAY FOR ITSELF?

The main question that concerns us is whether the energy-saving improvements you make will eventually result in cost savings through reduced fuel bills. The charts provided will help you estimate your cost and savings should you caulk and weatherstrip your doors and windows, install storm windows, and/or insulate an unfinished attic.

CAULK AND WEATHERSTRIP

You should consider making these improvments if a typical window or door in you house does not have caulking, putty, or weatherstripping or if these materials are old and cracked, missing in places, or if you notice drafts. To find out cost and savings:

COST

1. Multiply the number of windows that need caulking and putty times cost per window... _____ (# of windows) x $2.90 = _____
2. Multiply the number of windows that need weatherstripping times cost per window..... _____ (# of windows) x $2.00 = _____
3. Multiply the number of doors that need caulking times the cost per door..... _____ (# of doors) x $2.75 = _____
4. Multiply the number of doors that need weatherstripping times the cost per door... _____ (# of doors) x $6.00 = _____

TOTAL COST------ $ _____

SAVINGS FACTOR

A. Windows:
   - caulking and putty, in fair condition..... _____ (# of windows) x 0.3 = _____
   - caulking and putty, in poor condition..... _____ (# of windows) x 1.0 = _____
   - weatherstripping, in fair condition..... _____ (# of windows) x 1.0 = _____
   - weatherstripping, in poor condition..... _____ (# of windows) x 8.4 = _____

B. Doors:
   - caulking, in fair condition..... _____ (# of doors) x 0.3 = _____
   - caulking, in poor condition..... _____ (# of doors) x 0.9 = _____
   - weatherstripping, in fair condition..... _____ (# of doors) x 2.0 _____
   - weatherstripping, in poor condition..... _____ (# of doors) x 16.8 = _____

ADD UP ALL THE NUMBERS YOU'VE FILLED IN
TO THE RIGHT AND WRITE THE TOTAL..YOUR SAVINGS FACTOR = _____

This "Savings Factor" will be used later to determine potential cost savings. If this is the only chart you are filling out, please see the last chart (ENERGY CHECKLIST) and complete number 1 after reading final instructions.

STORM WINDOWS

There are three kinds of storm windows: Plastic at 50¢ each (You probably will have to put up replacements each year), Single Pane Glass at $10 each (you put them up and take them down each year), Triple Track Glass at $30 each installed professionally (These have sliding glass and screens, are permanent, and are for double-hung windows only).

A. PLASTIC STORM WINDOWS WITHOUT WEATHERSTRIPPING

_____ x $.50 = $_____
# of windows total cost

If your weatherstripping window conditions are good use 7.9 in the computation you are about to do below; if fair use 8.2; if poor use 10.8.

_____ x _____ = _____
number used (7.9,8.2, or 10.8) # of windows savings factor

B. PLASTIC STORM WINDOWS WITH WEATHERSTRIPPING (seperate from savings you may have computed earlier for regular windows)

_____ x $.50 = $_____
# of windows total cost

_____ x 7.9 = _____
# of windows savings factor

C. GLASS STORM WINDOWS

_____ x $_____ = $_____
# of windows $10 or $30 total cost

_____ x 7.9 = _____
# of windows savings factor

Complete the appropriate category on the ENERGY CHECKLIST.

INSULATE YOUR UNFINISHED ATTIC

This is the type of attic that has no roof or floor (perhaps some boards nailed to make a walkway) and will not be converted to living quarters. If you already have six inches of insulation, this is sufficient. Determine the thickness of your insulation with a ruler by inserting it between a ceiling beam and the existing insulating material. If you cannot get up into your attic, if there is dangerous footing, or if you do not have limited carpentry skills, consider hiring a contractor. The chart included here is for both do-it-yourself and professional insulation. Your attic's "area" is the same as your first floor. Determine area of your attic by determining each section (or first floor room's) length and multiplying it by width. If a section or room is not a rectangle, divide into rectangles, add the areas of seperate rectangles and determine total area:

for an entire attic.... _____ x _____ = _____
length width area

or list sections or rooms seperately..., and find your total
1. _____ x _____ = _____
2. _____ x _____ = _____
etc.

NO INSULATION insulation to use		600 sq.ft.	900 sq.ft.	1200 sq.ft.	1600 sq.ft.	2000 sq.ft.
yourself	R-22--cost	$108	$162	$216	$288	$360
	(same) savings factor--	236	355	473	630	788
contractor	R-22--cost	$180	$270	$360	$480	$600
UNDER 2 INCHES						
yourself	R-11--cost	$54	$81	$108	$144	$180
	savings factor--	51	77	102	136	170
contractor	R-11--cost	$114	$177	$288	$304	$380
2 TO 4 INCHES						
yourself	R-11--cost	$54	$81	$108	$144	$180
	savings factor--	22	33	44	59	74
contractor	R-11--cost	$114	$177	$288	$304	$380

Choose the proper square footage and amount of insulation and find the corresponding cost and savings factor. Enter on line 3 of ENERGY CHECKLIST.

COST AND SAVINGS

Now you are ready to figure out what the best energy saving steps are for you. Choose the proper "heating factor" and fill out the ENERGY CHECKLIST. Your heating factor depends upon fuel type:

If your fuel type is:	Your heating factor is:
OIL----------	.61
GAS----------	.55
ELECTRICITY----------	1.63

Enter figures you determined previously on the Checklist:

ENERGY CHECKLIST	enter saving factor		yearly savings	enter cost	net savings
1. Caulk & Weatherstrip					
_____ + .06 = ____ (heating factor)		x _____	= $_____	$_____	$_____
2. Storm Windows (enter your A, B, or C)	_____ (heating factor)	x _____	= $_____	$_____	$_____
3. Insulate Attic					
_____ + .06 = ____ (heating factor)		x _____	= $_____	$_____	$_____

WHAT ARE YOUR BEST INVESTMENTS?

Plastic storm windows will have to be replaced on an annual basis. To determine if this investment will save you money, simply subtract your savings from your cost. The result will be your net savings.

The remainder of improvements (caulk and weatherstrip, glass storm windows, insulating an attic) are "one-shot" investments. To determine net savings, multiply your figure for yearly savings by 13 and subtract your cost:

$_____	-	$_____	=	$_____
yearly savings x 13		cost		net savings

If your net savings exceeds your investment, you should consider making these improvements. If you need additional information to help you complete these charts or desire information on installation, financing, and additional energy-savings improvements, please contact my Lawrence, Lexington, or Lowell office.

--30--