Ask Jon Eakes

HOW DO YOU CALCULATE COST PAYBACK?

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One prominent member of the energy conservation establishment likes to say: "There are two ways to calculate payback. Simple payback that I can understand the other ways the only my accountant understands."The complications arise from the desire to include in the evaluation the cost of interest on borrowed money and the rate of increase of energy costs -- two things that we have to guess at. This leads to trying to compare present costs with future savings. For rewinterizing costs under $5,000, it is really not worth the effort. When the size of the investment gets big enough, then it could become important to ask your accountant to lend a hand.Homeowner payback calculations:-- Simple payback: Divide the initial cost by the first year's savings to see how many hears it will take to pay back the money spent. Up to 10 years is acceptable, 5 years is good and 1 year is excellent.-- Annual cost: Compare savings on your annual heating bill to annual payments on a loan, independent of the loan's amount, interest rate, and payment schedule. A good payback is when your new heating bill plus the load payments are no larger than your old heating bill.Accountant's payback calculations (just for fun):-- "Present worth" is the value in today's dollars of future energy savings.-- Discounted payback period: That period of time over which the "present worth" of the energy savings just equals the initial cost increment necessary to achieve the savings.-- Rate of return: The effective interest rate which would prevail if the "present worth" of the savings over the life of the investment just equaled the initial investment.-- Life cycle costs: The difference between the initial investment and the "present worth" of the heating cost associated with that option over its economic life.-- Optimum R value: The optimum R value at which the life cycle cost is minimum.Â

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