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Stop Throwing Money Away on Energy

It never ceases to amaze me how much money building owners waste on energy. It's a recognized fact that the average building wastes about half the energy it uses every year. This means building owners are literally throwing away half the money they spend on gas and electricity every year! That's a real shame given the state of today's economy and the fact that cost-effective options available today can solve the problem.

The extent to which so many energy efficiency and even solar energy options are cost-effective is compelling, especially to the number-crunchers out there. As a general rule we look for alternatives that provide positive net savings from the first year forward or, at the very least, within the first few years. I've shown a number of examples in this column "Going Green" over the years (previously in the Real Estate Showcase published on Saturday until today's issue). If you missed any of them they're archived here - www.TheEnergyGuy.com/Articles.html.

It probably goes without saying that every building is different, and what makes sense in one case doesn't in another. For example a house surrounded by giant pine trees wouldn't be a good candidate for a solar system. Beyond that simple example, the process for finding specific energy solutions giving the most savings for the least cost requires an energy expert. With that said, let's review two basic rules for how to make this concept work for you.

Rule #1: It takes money to make money. In the case of energy solutions yes, you'll need to invest in order to save, but in most cases it pencils out best with borrowed money. But before we get into that, know that there are always exceptions to rules and this is no different.

While in most cases you should get professional help, there are a number of things people can do on their own that cost little to nothing. A few examples of cost-effective energy solutions best left to professionals are solar power, solar water heating, and heating/cooling system upgrades (duct systems in particular). In terms of low-cost examples there are new Energy Star refrigerator/freezers and high efficiency clothes washers; California's "Cash For Appliances" program still has money for these (note – solar water heating was recently added as well). No-cost examples include better use of programmable thermostats, using the "moisture sensing" shutoff feature on your clothes dryer, turning off the heated-dry function on your dishwasher, and unplugging appliances that consume energy when you're not using them.

While these are but a sampling of the hundreds of options available, the options providing the largest savings usually require a fair up-front investment. So getting back to rule #1, the approach taken by most is to borrow money with mortgage-backed financing, either through a Home Equity Line of Credit (HELOC) or through a refinance with today's ultra low fixed rates. These work with energy saving investments thanks to the mortgage interest deduction and because the savings are certain, even

measurable and verifiable. Most any other type of investment involves significant risk, so please don't borrow against your home and invest in the stock market! In fact with interest rates so low these days many people are getting out of so-called conventional investments and reinvesting that money into energy solutions for their home.

Another benefit of energy investments is that they don't just return savings, which is equivalent to interest income, they really hold their value. An article in the Appraisal Journal found that, for every dollar saved on energy in a year, the value of the home increased \$10 to \$25. The actual increase in the value of the home varies, of course, and the more energy prices escalate the higher the increase in home value. While we're currently enjoying a plateau on oil prices, industry experts forecast prices to rise dramatically (and permanently) in as few as 2 to 5 years. And that will, in turn, increase the resale value of buildings with lower than average energy bills.

Rule #2 for making an energy investment work has to do with whether or not a building owner can take advantage of the incentives available. I'll use a solar electric system purchase as an example, which has both a rebate from PG&E as well as a Federal tax credit. An off-grid solar electric installation can qualify for the Federal Tax Credit but not the PG&E rebate because they must be connected to PG&E for that. In the case of building owners with little to no tax liability they can get the PG&E rebate (given their system is tied into PG&E) but they may not be able to take advantage of the Federal tax credit if they have no tax liability (the credit can be rolled over into future years for those with minimal tax liabilities).

That's it, folks! Just follow the advice of a knowledgeable, trust-worthy energy specialist and, along with these two simple rules, you too could stop throwing money out the window on utility bills!

Ray Darby is President of Sustainable Energy Group Inc., a Grass Valley company offering energy efficiency and solar services for residential and commercial buildings, from comparing the alternatives through installation and servicing of energy systems of all types. You can reach him at 530-273-4422, via email RayDarby@SustainableEnergyGroup.com, or visit their web site at www.SustainableEnergyGroup.com.