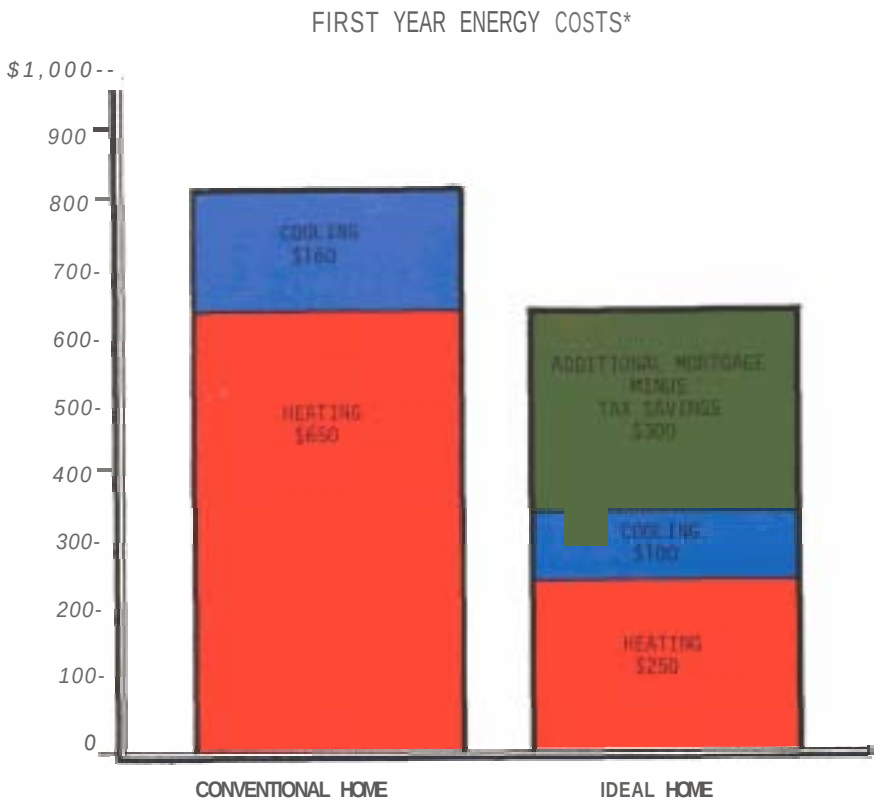
Why Build an Energy Efficient

By Randy *Martin*

Randy Martin

This house combines passive solar with super-insulative construction.



Bused on 2,500 square-foot homes using natural gas furnaces. The IDEAL home buyer in the 25% tax bracket is still ahead, after investing $3,000 more at 13% interest, 30-year term.

With the recent slide in oil prices, many of us have forgotten about energy efficiency. This decline will not last forever and when prices rebound we may be in much worse shape than we were before. These drastic declines in oil prices, however, have not been seen in residential natural gas and electric prices. These prices are what should determine the efficiency of our new homes.

Why should we build energy-efficient homes? **A 1985** survey by Builder magazine showed energy efficiency to be the number two motivating factor for move-up buyers of larger detached homes. In the lower-than-$100,000 market, energy efficiency ranked first. Buyers want energy efficiency. Building an energy-efficient home requires attention to detail, which results in a quality-built home. Buyers want quality, Constructing energy-efficient home benefits everyone involved. First of all, Iowa benefits. Iowa imports **98** percent of its energy. 3 billion dollars a year leaves the economy of the state of Iowa for the economies of states such as Texas, Oklahoma, and Wyoming, and other countries such as Saudi Arabia. If Iowans would save just 10 percent, that would inject 350 million dollars into the Iowa economy The more dollars spent on energy conservation, the more dollars Iowans have left after paying their utility bills to spend in the local economy. Choosing energy efficiency is choosing ***eco***nomic development for Iowa.

Second, the utility company benefits by not having to build a new power plant or install a new pipeline as soon. The building supplier sells more materials. The builder sells a quality home that is worth more. The real estate agent gets a larger commission. The lender lends more money and receives more interest, without increasing the borrower's annual housing costs. The borrower's **annual** payments for principle, interest, taxes, **insurance,** and e (PITIE) can **actually** decrease **wi** energy efficient home. The figure shows that the additional investment

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of $3000 in an energy efficient home can often be offset in the first year of ownership by the lower energy costs. And, as energy prices increase, the owners of the energy efficient home will be even farther ahead of their neighbors with conventional homes. Building an energy efficient home is planning for the future.

Energy efficient homes do not have to be exotic designs. They can use standard construction practices and materials, can be adapted to almost any architectural style, and are suitable for any lot. If energy-efficient homes are built properly most can be heated for $100-300 per year, but economics is not the only reason to build an energy-efficient home. The homeowner gets a home that's comfortable. It has no drafts and the temperatures are even throughout. A tight, well-insulated home is also very quiet. It can have plenty of natural light and better air quality than you can get in a conventional home. ... also have a comfortably high, ...ontrollable, humidity in the winter.

The bottom line is that energy-efficient features give builders a better sale price and homeowners a better quality home. I have just completed a book entitled, "A Builder's Guide to Iowa's IDEAL Homes." The book will include over 95 details on three construction approaches; the Airtight Drywall Approach, the Strapped 2x6 Approach, and the Double 2x4 Approach. It will also cover heating, cooling, controlled ventilation, and water heating systems, along with sections on orientation, layout, insulation, windows & doors, lighting, appliances and landscaping. It should be available in the near future from the Energy Hotline. Call *1-800/532-1114* (in Des Moines 281-7017) to be placed on a list to receive a copy when it becomes available.

Randy Martin is an energy specialist for the department. He holds *a B.A. degree ...Iowa State University. He also ...as coordinator for the department's energy hotline.*