

Exploring your options

Switch from oil to gas heat could pay, but not always

By Paul Adams | Sun reporter
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\$2,500

The amount gas furnaces often run to several thousand more, depending on model and efficiency ratings.

\$4,000

The cost of boilers when extras are factored in.

\$1,200 - \$2,000

The amount to add to the cost of a new system if new chimney liner is required. Add \$500 to \$800 more if the boiler is clad with asbestos.

- Visit the American Council for an Energy Efficient Economy www.aceee.org and click on "consumer resources" to find information on heating systems and fuel costs.

CONVERTING FROM OIL TO GAS

Pros

- Convenience: No waiting for fuel oil deliveries.
- Fuel cost: With crude prices near record levels, natural gas is cheaper.
- Natural gas systems are less expensive to maintain.
- More high-efficiency models from which to choose.

Cons

- Oil prices could fall, making gas less attractive.
- Gas is not available in all areas.
- Expense: May require running gas line into the house.
- Converting may require a new chimney liner.

When my wife and I bought our 1924 Baltimore rowhouse, we figured the original oil-fired boiler in the basement was just part of the charm of having an old house - like inlaid hardwood floors and french doors.

Heating upgrade

Upgrade your heating system when existing equipment is more than 10 to 15 years old and if you plan to stay in your home five or more years.

Then fuel oil topped \$3 a gallon this fall and kept going. We quickly realized that the 83-year-old, cast-iron behemoth in our boiler room was the automotive equivalent of a gas-guzzling Humvee. What we really wanted - and ultimately bought - was something more along the lines of a Honda Civic.

Turns out, we're not alone. Heating contractors and conservation experts say interest in high-efficiency heating systems is rising along with the price of heating fuel.

As the price of crude soars, many are pondering whether to abandon oil systems in favor of natural gas. The higher the price of fuel, the reasoning goes, the faster a new system pays for itself in savings.

But as we found out, the economics of upgrading depend on how long you plan to stay in your home and how much efficiency you can afford. It also means making some educated guesses about where volatile natural gas and oil prices are heading in the future.

Energy experts say fuel oil is currently more expensive to heat with than natural gas, but there is no guarantee that it will be that way a year or two from now. Natural gas was certainly no bargain two years

ago, when Hurricane Katrina wiped out production along the Gulf Coast and temporarily sent prices soaring to record levels.

"Both natural gas and oil tend to track fairly closely price-wise," said Alex Wilson, president of Building Green Inc. in Brattleboro, Vt., and co-author of the book *Consumer Guide to Energy Savings*.

Experts caution that many other factors - including the age of your system - trump fuel choice as the first variable to consider when deciding to invest several thousand dollars to replace heating equipment. As a rule, if a system is more than 15 to 20 years old, upgrading is probably worthwhile for those who plan to stay in their home for at least five to 10 years.

That is because many systems installed before 1992 have an annual fuel utilization efficiency (AFUE) as low as 60 percent. That means only 60 cents of every dollar spent on fuel is converted into heat, while the other 40 cents essentially goes up the chimney.

My old boiler went through 150 to 200 gallons of oil in some of the coldest winter months over the past few winters. That kind of gluttony was palatable when fuel oil cost less than \$2 a gallon. But at \$3.25 per gallon - the average cash price in Maryland last week - that equates to about \$488 to \$650 worth of fuel in a single month.

By comparison, most newer boilers and furnaces have an AFUE rating in the low 80s for a standard model to as much as 96 percent for a super-efficient version. For both furnaces and boilers, the most efficient models may cost \$1,200 to \$2,600 more than those in the 80 percent range. Standard versions can run anywhere from \$2,500 to \$4,000 installed.

But upgrading to a system with either rating can potentially shave 20 percent to 30 percent - and sometimes more - off the average homeowner's heating bill.

"People who have the means are going with high efficiency," said Harold Scott, owner of Coldspring Co. Inc. in Baltimore. "But if you're going to move in three years, you're going to buy an 82 percent [efficient] system and let the next guy worry about the heating bill."

When it comes time to buy, it is a good idea to calculate the true cost of heating with various fuel types before deciding what kind of system to purchase. Wilson, who also wrote the book *Your Green Home*, developed a comparison chart.

Baltimore Gas and Electric Co. customers now pay about \$1.34 per therm for natural gas, including delivery charges. According to Wilson's chart, that amounts to less than \$15 per million Btu, assuming the furnace has an efficiency of 95 percent. The Btu is a standard measure of heat energy. By comparison, fuel oil - at the Maryland average of \$3.25 a gallon - comes to more than \$25 per million Btu. The comparison assumes an efficiency of 90 percent, which is near the top of the efficiency scale for oil-fired equipment.

Propane also runs high relative to gas, as do basic forms of electric heat. Fewer homes in the Mid-Atlantic heat with propane or electricity.

Peter Horrigan, president of the Mid-Atlantic Petroleum Distributors Association, warns consumers against trying to guess which fuel is going to be cheaper over the long run. During much of the past decade, fuel oil was less expensive than natural gas, he said. People are better off focusing on how to use less, rather than guessing at the market's direction.

However, energy experts and heating contractors say another thing to consider is that natural gas systems tend to be cheaper to purchase. And there are more high-efficiency models to choose from, compared with oil-burning models. A new furnace will last 15 to 20 years, while boilers tend to last a bit longer.

Natural gas systems also tend to be cheaper to maintain. By their nature, oil burners need annual cleaning and tuneups to maintain peak efficiency. There is also the convenience factor to consider. With gas, there are no worries about whether the fuel oil truck will arrive before your tank goes dry.

Costs of a new system vary widely. Contractors say a typical boiler or furnace replacement can range from \$2,500 to as much as \$4,000 installed. The price goes up if, like me, you are replacing a 1920s-vintage boiler entombed in asbestos. The asbestos must be removed, and that typically adds \$500 to as much as \$900 to the cost of replacement.

Upgrading also may require investing in a new chimney liner, depending on the condition of the existing one and the type of system being purchased. Modern boilers are far more compact and often require a liner with a smaller diameter than typically exists in many older homes. Without it, exhaust gases might not vent properly.

A new aluminum liner can run \$1,200 or more, while a stainless steel version can cost \$2,000.

My wife and I opted for a natural gas system that - factoring in asbestos abatement, chimney liner and removal of the old oil tank - came to about \$7,000.

The new unit is practically silent and less than half the size of the old one, which was originally designed to burn coal.

No word yet on cost savings. We're still waiting for that first BGE bill to arrive.

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