

### **Rising heating prices cause home owners to find alternative heating solutions**

What does a home owner do with the issue of rising costs for natural gas, especially when the only option to heat their home is natural gas? What do we do?

With the price of natural gas rising, we came across the issue of needing to replace our central furnace system at a cost of \$2700. After much research, the best choice for heating our home was through Alternative Heating Choices. And just what ARE these choices?

Alternative Heating Choices are also called Biomass Fuels. For driving vehicles, these biomass fuels are the ethanol, where corn is processed to make fuel. For homes, it's a matter of taking these fuels and burning them to heat the home. There are many choices for these fuels.

James Dulley, a writer for the Lexington Herald-Leader in Kentucky, suggests the following for types of biomass fuel. "Some typical local biomass fuels are corn in the Midwest, peanut shells in the South, cherry pits in the North, and wheat or sunflower seeds in the Plains."

We have also heard of other fuels such as soy beans. The typical home that is using alternative heating will use shelled corn and wood pellets, also another choice for heating.

Wood pellets are made by taking chippings created at wood mills and compressing them into a pellet format. The wood mill, historically, would have taken the chippings and created a waste product. Now, the wood mills can save the environment by converting the chippings into pellets.

We had been researching the usage of such heating systems for a few years. My husband and I purchased our current home in 2005. The first problem we had with our home was the old windows in the house. With the house being built in 1950, none of the former owners ever

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replaced the windows. This was our first heating problem. In spring 2007, we replaced the windows, saving our heating costs dramatically.

But, the heating prices kept increasing. We had to do something.

A neighbor of ours introduced us to another neighbor who told us about his “pellet stove” that he had installed in his home. Our neighbor is Donnie Ritchie. He invited us over to see his stove.

The stove was beautiful. It reminded us of an old-fashioned wood-burning stove. That was the idea he told us. He said that he had installed it into his home in January a few years earlier, being four years now.

Once he started using his stove, he stopped using his central furnace system all together. He said the natural gas company thought there was a problem with his gas meter. They changed the meter for him. When they still weren't receiving any readings of gas usage, they contacted Ritchie, asking him if he still lived in his home.

He said, “Yep. I still live here. I bought a pellet stove to heat my house.”

That was all that was said in the conversation.

At the time, he said he was paying a monthly budget price to the natural gas company and tried to cancel his budget payments. The gas company would not allow him to cancel the budget. Do you want to know what his budget surplus at the end of that year? He had over \$900 in over payments to the gas company.

Did they return that money he paid? No. To this day, he still has over \$400 in surplus on his account.

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Ritchie didn't fight that fact. He said to us that since he has a gas bill anyway, however small it is, let them take it from the surplus.

He hasn't paid a gas bill in three years!

He told me just recently that his bill for January, 2008 was \$7. He still uses his natural gas, but is only using it to heat his hot water tank.

We started to research over these past few years, how we wanted to put one in our home, but what type to put in. We found out there were stove models, like the one Ritchie had, along with inserts for fireplaces and also central furnace systems that could connect to the current furnace system, allowing for the heat to enter the rooms like previous.

What model do we purchase? Of course, the fireplace insert was out of the question as we do not have a fireplace in our home.

We decided that with the rising natural gas prices this was the best year to decide to make our change. So, what model do we purchase? a stove or a furnace? And, which brand do we purchase? There are many different companies out there to choose from and many different retailers who sell the products.

Ritchie has a pellet stove from the company Quadra-Fire. This company has been in business since 1986, with production of pellet stoves in 1990. They produce models that are stand-alone stoves and fireplace inserts.

Other companies include Bixby Energy, Harman Stove Company, and United States Stove Company.

Initially, we thought of purchasing a central furnace system from the United States Stove. This unit was efficient enough and would comfortably heat our home. We could connect into our current heating's duct work, allowing the heat to come directly to each room as the original central furnace system did.

However, we had some problems. Where do we put the furnace? Our home is a brick ranch that's 1274 square feet on the main floor, with a full basement under. The problem we encountered dealt with the space the current furnace occupied. We couldn't just remove the old furnace as we also have a central air system in the summer. The furnace would need to stay for the central air. And, the room the furnace lives in is also the location of our washer and dryer.

To top it off, this was also the location on the foundation wall where all of our utilities come into the house. The meter for the water company, the meter for the gas company, the main water line into the house, and our satellite hookup are all located entering through this part of the basement.

We looked at the room to the front of our basement. The basement is broken into two large sub-rooms, divided in half with a cinderblock wall to support the main house above.

We looked into putting the furnace in this front room. Even though the price was right for the furnace, there would have been a tremendous amount of extra costs in getting the furnace to connect into the existing duct work.

In the end and more conversations with Ritchie, we opted for the Quadra-Fire pellet stove.

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We opted to put the stove in our living room/dining room which is a 13 foot by 28 foot space. The model we purchased was a Quadra-Fire Classic Bay 1200 (CB 1200), the original version developed by the company.

The stove did cost more (\$2300 plus an additional \$200 for exhaust pipe materials), but the cost evened out as we didn't need nearly as much piping to get the exhausts outside with the pellet stove. With the central furnace system, we still needed to vent the unit separate from the main exhaust from the original furnace.

As we were told by store workers at a Tractor Supply Company (TSC) in Wooster, Ohio was that because the original furnace exhaust still contained remnants of natural gas not burned, if the pellet furnace were connected to the main exhaust pipe, the unit could cause an explosion when the pellet furnace sparked for burning.

This was an issue indeed.

With the pellet stove, the unit isn't connected with the central furnace at all.

Ritchie explained to us how he was using shelled corn and wood pellets to heat his home. The stove he has is a model slightly smaller than the one we purchased, allowing for him to use both in a 50/50 mixture to burn and heat.

The model we purchased can use wood pellets only to heat the home or the corn/pellet mixture that Ritchie uses. Quadra-Fire has also come out with a newer model that can burn corn alone, or sunflower seed and wheat. This newest model also burns the wood pellets. Additional information specifically from Quadra-Fire can be found on their Web site at [www.quadrafire.com](http://www.quadrafire.com) and select the PELLET link graphic.

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There is a significant cost savings to us as home owners. We purchased and installed our stove on February 19, 2008. After installation, we shut off the furnace.

Our Natural Gas Company is Columbia Gas of Ohio. While researching for which model to buy, I reviewed the gas pricing figures on the Web site for Columbia Gas.

It stated that in December, 2007, the cost of gas consumed was \$1.03 per unit. This price increased 7 percent for the March 2008 bill to \$1.10 per unit of natural gas used. Along with this figure, we, as consumers, have also been paying a \$.32 (32 cents per unit) surcharge for maintenance and recovery fees to Columbia Gas. With March's bill, our gas price was \$1.42 per unit used.

On average, over these past few months, when the weather became worse, our natural gas consumption has been 10 to 15 units of gas per day.

What has been our average cost per day? \$14.20 in March 2008.

With this past mailing from IGS, they state the natural gas price is expected to increase to \$1.199 per unit used. When a consumer adds in the 32 cents per unit for recovery fees, consumers pay an increase in the per-unit-price to over \$1.52 per unit.

Why this fee important? In February, our gas bill was \$250, and our average monthly bill has been \$250.

After purchasing our stove, we also had to purchase the fuel that would be used in the stove. We needed to find a supplier of the fuel and found that we needed to purchase shelled corn and wood pellets. The pellets would be easy to find as they can be found in almost any home improvement store, but the cost fluctuates based on where it is purchased.

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We purchased the pellets from a True Value Hardware Store in the next town over from us, Grafton, Ohio. They told us at the time that they had tons of pellets for sale. The cost was \$3.99 per 40-pound bag. A ton of pellets would cost us \$200 plus sales tax, totaling \$211. These pellets were prepared in 40-pound bags. After two trips with both of our vehicles, as we do not own a truck, the entire ton of pellets was at our home and stored in our garage.

The corn was a different issue. The corn used couldn't just be any corn. The farmers who grow the corn have to dry the corn to allow only 13 percent or less moisture contained in the corn. Initially, we purchased the corn directly from Ritchie's co-worker and friend. He also purchased a pellet stove at the same time Ritchie did and owns a farm, where he grows and dries the corn. This is the same corn that is used to feed the cattle on his farm.

The corn didn't last long.

We had a difficult time reconnecting with Ritchie's farmer friend to purchase more. We had to look for another supplier and quickly. The home improvement stores that were carrying the corn were charging in excess of \$7.89 per 50-pound bag.

This was just too expensive to heat our home.

After a few calls, taking three contacts to find the right person, we found a farmer who grows the corn specifically to sell it for burning and heating purposes. This was quite a drive for us. We are located in Elyria, Ohio. The farmer lives and runs a farm in Norwalk, Ohio, which is a 45-minute drive in one direction, west of our home. Knowing how much corn we wanted to purchase, wanting a ton of corn, we swapped vehicles with a friend, who owns a truck, to bring the corn home.

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What happened was that the farmer took the work out of cleaning the corn. With Ritchie's friend, the corn we purchased was very "dirty," meaning it still contained the cob pieces and dust. With this new farmer, we were able to get corn that was dried correctly, but also cleaned of the cobs and dust. And, the corn was bagged in 50-pound brown bags.

After two trips to get the bags, we also now have a ton of shelled corn in our garage. The total cost for the shelled corn at \$5.50 per bag was \$220.

A ton of each the wood pellets and corn will heat our home for approximately 3-4 months.

What was the total cost of our 2 tons of fuel? Approximately \$230. If we were using the natural gas every month during this timeframe, our cost would be well over \$1000.

We are now spending an average of \$5-\$6 per day versus the \$14 up a day for natural gas.

When we finally decided to purchase the unit, we estimated the total cost of natural gas for a year, including the natural gas used to heat our hot water tank. That cost was close to \$1800 for a year. Our cost for just heating our home was estimated at \$800 for an entire winter/heating season.

There are many others who have been turning to alternative/biomass fuels to heat their home. One man specifically, who is Robert Walker. Many of us would know him from the fact that he invented and started the Select Comfort Corporation (the mattress people). Living in Minnesota, he and his wife built a 12,000 square foot home. A few months later, he was shocked to find his monthly heating bill was \$1700.

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Being an inventor and interested in the environment, he designed and produced a new line of heating options under the name Bixby Energy, starting his company in 2001. His company has two products, a pellet stove and a central furnace. Both burn wood pellets and shelled corn.

This is an excellent way to use wastes that may have gone into landfills, specifically with wood chippings and other agricultural wastes.

Judith W. Monroe, a writer at Backwoods Home Magazine, said that the stoves of today are much more efficient than the one invented in 1969.

What a good way to give a home owner an option for heating their home and at the same time save money on the heating bill while also supporting local farmers.

It will be good to have a \$7 a month natural gas bill!