Why Burn Wood?

Why burn wood? This is a good question, especially since there has been a recent proliferation of gas and propane appliances which are known for their clean, convenient and effortless performance. But while gas appliances are useful and efficient heaters, they are almost like watching TV; they have an aura of "virtual reality".

Burning wood is real. There is nothing like the ambiance and radiant warmth of burning wood - whether it's at a campfire or a cook-out, on a fireplace hearth, or in a wood burning stove. It's a fundamentally creative exercise. Every fire is different, every day. It requires effort and thought to burn wood (you don't just click a remote control or a wall switch and forget about it). Burning wood brings you closer to nature and the environment. Wood is a renewable energy resource and burning wood is an economic and efficient use of the earth's energy.

Radiant Heat Is Comfortable Heat

A real wood fire is always the focus for family, friends, and conversation. And radiant heat just plain feels good. There's nothing particularly romantic, beautiful, or cozy about a radiator, hot air ducts, or a central heating system.

For all of human history, people have gathered around the fire for warmth and companionship. They still do. During the cold winter months, when friends and family gather in the warmth around the woodstove, its presence is part of the experience. Whether it evokes thoughts of romantic evenings spent by the fireplace or the memory of childhood sing-a-longs by the campfire, the woodstove has an emotional resonance that no central heating system can match. It is more than a mere appliance.
Burning Wood Is A Creative Exercise

Each wood fire is unique. Day-to-day changes in wind, weather, atmospheric pressure, chimney draft, wood type and moisture content all affect the performance of your stove. It is satisfying to be part of a process where there is always an opportunity to learn more.

For many people, heating with wood is a little like having your own garden. A garden is more work than going to the store for your food. But there is a payoff in the personal satisfaction of being part of the process, and in raising vegetables that are far superior to those at the store. The same is true of heating with wood. Raising the thermostat and sending a check off to the utility company is easier than stacking your firewood and tending the stove, but it is also far less satisfying.

Burning wood is like gardening, cooking, home renovation, or alternative traveling (by sail, bicycle, or walking). It requires participation and effort but offers commensurate rewards.

Wood Is A Renewable Energy Source

Solar power, wind power, and wood energy are all renewable resources. They can be used without depleting the earth's natural resources. A well-managed forest can be a sustainable, renewable source of energy that will help us reduce greenhouse gas emissions by reducing the amount of oil, gas, and coal that we burn for heat.

Sound woodlot management yields firewood as a byproduct of thinning out non-lumber grade trees. If allowed, nature will replace what we use. This means that, with care, we will never run out of firewood.

Using wood as a fuel is also good for the atmosphere because it helps to reduce the build-up in greenhouse gas emissions. Trees go through a natural cycle of growth and decay. And, whether they are burned or are slowly oxidized as they rot on the forest floor, there is a balance between the carbon taken from the atmosphere by trees as they grow and that which is released once they die. Therefore, the use of wood recycles the carbon dioxide in the atmosphere -- unlike the use of oil or coal, which reintroduces long buried carbon into the atmosphere. Also, unlike coal or fuel oil, wood releases little acid-rain-causing sulfur dioxide into the atmosphere.
Catalytic Combustors Create Clean, Efficient Burning

The modern woodstoves sold by Woodstock Soapstone Company are exceptionally clean burning. These stoves use catalytic combustors and emit between 1.3 and 3.5 grams of particulate matter per hour, depending on the model.

Many of the stoves produced during the great woodburning boom (after the oil embargoes) of the 1970's limited the amount of air going into the firebox in order to increase burn times. This resulted in lower firebox temperatures, incomplete combustion and a great deal of smoke. Some of these stoves put out more than 60 grams of particulate matter per hour.

The problem got so bad that some cities actually limited the use of woodstoves and fireplaces. The woodstove industry responded by developing much cleaner stoves. At Woodstock Soapstone Company we chose to use catalytic technology, like that used in your car, to make our stoves cleaner.

The benefits of a catalytic combustor far outweigh the added cost. The most obvious advantage is clean burning. Another important advantage is safety. Properly operated, a catalytic combustor can reduce creosote and the danger of chimney fires by as much as 90%. Still another advantage is efficiency. Using a catalytic combustor increases the stove's efficiency by up to 25%. This will save you a lot of work if you cut and split your wood -- and a lot of money if you buy it. In fact, it is likely that if you use your soapstone stove as a primary source of heat, your combustor will pay for itself before the end of the first heating season.

Wood Heat Is Economic

Wood heat is one of the least expensive ways to heat your home. According to a 1997 survey by Corning, Incorporated, of fuel suppliers around the country, to provide a 2,000 square-foot home with 64.5 million BTUs of heat would cost the following:

<table>
<thead>
<tr>
<th>Fuel Type</th>
<th>Corning, NY</th>
<th>Minneapolis, MN</th>
<th>Seattle, WA</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catalytic Woodstove</td>
<td>$461</td>
<td>$517</td>
<td>$443</td>
<td>$474</td>
</tr>
<tr>
<td>Gas Stove</td>
<td>$564</td>
<td>$548</td>
<td>$403</td>
<td>$505</td>
</tr>
<tr>
<td>Coal</td>
<td>$571</td>
<td>$323</td>
<td>$839</td>
<td>$578</td>
</tr>
<tr>
<td>Fuel Oil</td>
<td>$720</td>
<td>$637</td>
<td>$733</td>
<td>$697</td>
</tr>
</tbody>
</table>

A typical fireplace has net energy efficiency of zero. Heat production is offset by heat loss up the chimney.
### Wood Heat Is Secure

Since our woodstoves operate with natural draft, no power is required to operate them. If you lose power in a severe storm, you can continue to heat with wood, and cook on the stove. During the prolonged power outage in January 1998, residents of Northern New England and New York who heated with wood were able to stay in their homes and avoid damage from frozen water pipes - a real testament to the effectiveness of wood heat.

One of our customers in Maine said that his Woodstock Soapstone Stove saved his family during the 1998 ice storm. "It did everything but play music."

Heating with a woodstove will give you a sense of security and independence that you won't get from any other source of heat. Plus, you have the option of providing your own fuel or buying wood from a local woodcutter. And the firewood business puts money into the local economy, rather than into the pockets of multi-national corporations.

### What Are The Options For Heating With Wood?

There are basically three ways to heat with wood: fireplaces, furnaces and stoves. Naturally, we are biased about which one is the best choice, but there are reasons for our bias.

Fireplaces are beautiful, romantic and incredibly inefficient. When they are not being used they act as an open vent in your house which lets the cold air in and the warm air out. And, when they are being used, most of the heat goes right up the chimney. The average fireplace has a net efficiency of 0% (some even have a negative net efficiency, meaning that they contribute to an overall loss of heat in your house.) If you don't have a fireplace, adding one will cost significantly more than buying a woodstove and you will never recover the money in reduced fuel bills. If you do already have a
fireplace, it may look nice but it won't do an adequate job of heating your home.

Wood fueled furnaces (which heat air) and boilers (which heat water) both provide central heat throughout the entire house. They are convenient, and more automated than stoves. And, they are located out of the way in the basement or furnace room, which may be seen as an advantage if you really don't want a woodstove as part of your living area. However, they are significantly more expensive than wood stoves -- especially if you have to pay for duct work or plumbing. They depend on electricity -- a factor to be considered if power outages are part of your winter experience. And, they are totally lacking in charm. It just isn't the same, curling up next to a warm furnace.

Stoves, on the other hand, provide all the advantages of burning wood presented above. They are the most controllable, reliable and economical way to heat your home. Because of their lower price and greater efficiency, they can pay for themselves in reduced fuel bills. They are reliable, and do not need electricity to operate. And, models with windows have much of the charm of a fireplace, minus the inefficiency.

**What About Pellet Stoves And Gas Stoves?**

Pellet stoves are an attempt to provide the advantages of wood heat with greater convenience. They work by automatically feeding wood pellets into the stove's firebox. They have the advantage of not using fossil fuels, and not contributing to the buildup of greenhouse gases in the atmosphere. They are very clean burning and if they have a window you can sit and watch the glow of the firebox. On the down side, having mechanical feed systems and forced air blowers, they are dependent on electricity to function, and they are noisy. They require the purchase of a manufactured fuel, which may not be available where you live. Pellets are more expensive than firewood. And, last but not least, watching the glow as the pellets are fed into the firebox can't compare with watching the fire in one of our woodstoves. We have the same reservations about corn stoves, which are economic but rely on electricity, expensive fuel, and lack ambiance.

Gas stoves are another attempt to provide the woodstove experience with greater convenience. And, if you live in a big city where you just can't get wood, they may be a satisfactory substitute. But, they aren't woodstoves. You are still burning a
fossil fuel and contributing to the buildup of greenhouse gases in the atmosphere. You are still dependent on a big utility for your fuel. And, you are not going to get the same savings on your fuel bill.