

Heating with Wood

—A Cost Comparison

Wood is one of nature's most plentiful fuels. It is renewable and usually very economical. Efficiencies of wood-burning devices vary drastically from about 10% for the conventional fireplace to 50% or higher for efficient wood-burning stoves. By using one of the more efficient stoves, the cost of fuelwood can be competitive with other conventional fuels.

Efficiency of the wood-burning unit is the key to cost-saving. Heating a house by burning wood in a conventional fireplace with a 10% efficiency is costly. Woodstoves without air controls, such as the conventional "Franklin" unit, have effi-

ciencies up to 30%. The majority of stoves with controlled-air inlets into primary and secondary combustion areas offer efficiencies up to 50%.

You may use the graph below to determine whether or not wood offers an economical alternative to other fuels for your situation. Here is how it works:

In the example shown by the dotted line, 4¢-per-kwh electricity is equivalent to \$1.15-per-gallon fuel oil, 95¢-per-therm natural gas, 85¢-per-gallon LP gas and \$180-per-ton coal. To compare fuel costs with wood burned in a 30% efficient woodstove, go down vertically from where horizontal fuel-cost line intersects slanted 30%-efficiency line.

In the example, equivalent wood costs are \$100 for hickory and oak, \$70 for Douglas-fir, fruitwoods, juniper, maple and redwood, and \$60 for pine, spruce, and similar woods. Once the dotted lines have been established for your present fuel cost and wood-burning unit efficiency, any fuel costs below and to the left of dotted line are less expensive than your regular fuel;

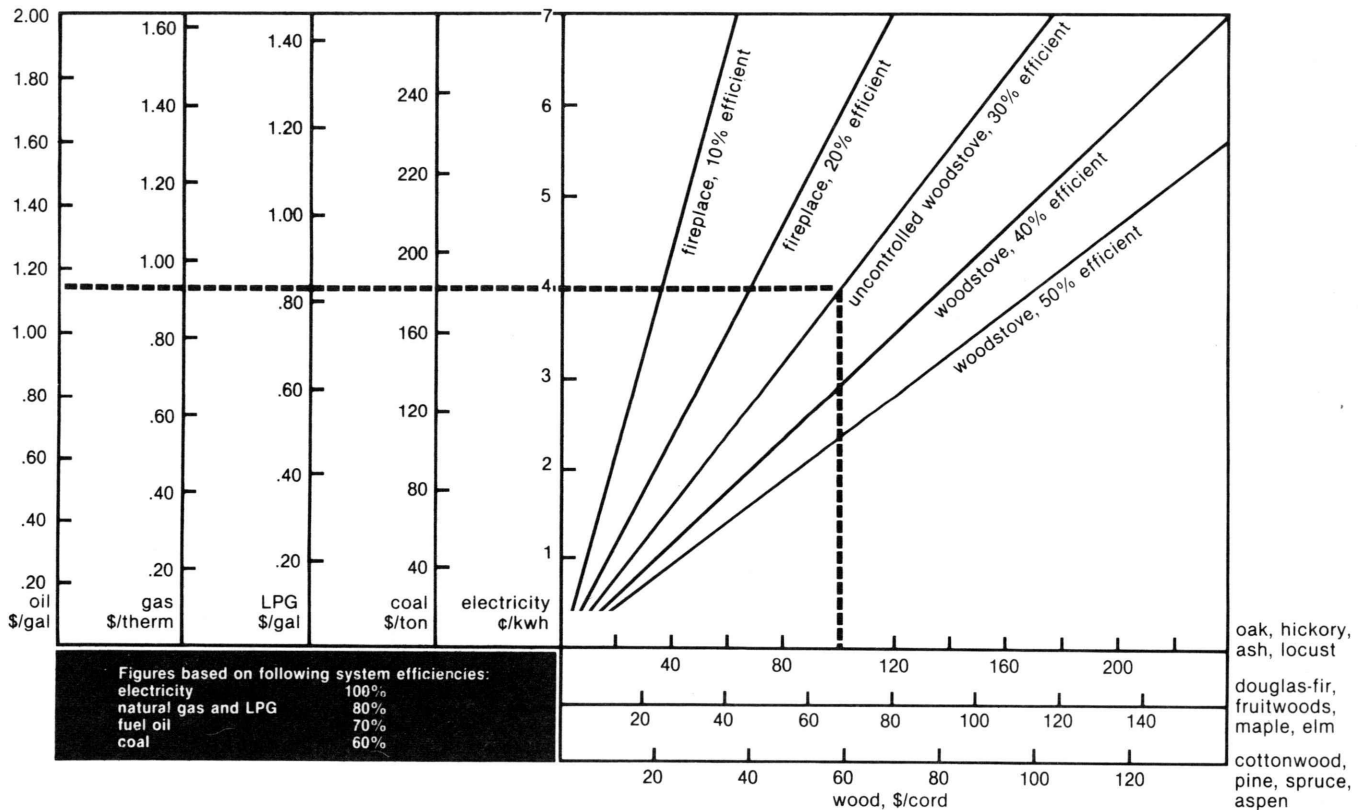
any fuel costs above and to the right are more expensive.

If you are paying 4¢ per kwh for electric heat, then \$1.00-per-gallon fuel oil or, \$60-per-cord Douglas-fir would be less expensive; \$1.00-per-gallon LP gas or \$120-per-cord oak would be more expensive.

Remember, this chart compares fuel cost only. It does not take into consideration installation and maintenance costs of a system nor the satisfaction and security of having a "wood-burner" that is independent of electric power and conventional fossil fuels.

CAUTION: Wood-burning stoves present a potential fire hazard. Before installing any wood-burning system, check with local building inspectors and fire department for installation requirements. Also check with your local insurance agency. Have the building inspector and insurance agent inspect and approve your installation.

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