

Fuel Heating Cost Comparison - Montana

November 1, 2023

| Fuel Type | Heat Value/ Therms/Unit | Unit Cost | Unit Cost Per Therm | Appliance Type | Appliance Efficiency | (%, COP, or AFUE) | Cost Per Therm |
|------------------------|----------------------------|----------------|------------------------|---------------------|-------------------------|----------------------|----------------------|
| Wood | 200 /Cord | \$150 /Cord | \$0.75 | Fireplace | 38 % | | \$1.97 |
| Wood | 200 /Cord | \$150 /Cord | \$0.75 | Stove | 72 % | | \$1.04 |
| Electric | 0.03413 /kWh | \$0.145 /kWh | \$4.25 | Baseboard | 100 % | | \$4.25 |
| Electric | 0.0529 /kWh | \$0.145 /kWh | \$4.25 | Air-Air Heat Pump | 1.55 | C.O.P. | \$2.74 |
| Electric | 0.1024 /kWh | \$0.145 /kWh | \$4.25 | Earth-Air Heat Pump | 3 | C.O.P. | \$1.42 |
| Propane | 0.915 /Gal. | \$2.199 /Gal. | \$2.40 | Furnace | 80 % | AFUE | \$3.00 |
| Propane | 0.915 /Gal. | \$2.199 /Gal. | \$2.40 | Furnace | 90 % | AFUE | \$2.67 |
| Propane (NWE Townsend) | 0.915 /Gal. | \$1.904 /Gal. | \$2.08 | Furnace | 80 % | AFUE | \$2.60 |
| Propane (NWE Townsend) | 0.915 /Gal. | \$1.904 /Gal. | \$2.08 | Furnace | 90 % | AFUE | \$2.31 |
| Pellets | 150 /Ton | \$350 /Ton | \$2.33 | Stove | 80 % | AFUE | \$2.92 |
| Natural Gas * | 1 /Therm | \$0.819 /Therm | \$0.82 | Furnace | 80 % | AFUE | \$1.02 |
| Natural Gas * | 1 /Therm | \$0.819 /Therm | \$0.82 | Furnace | 90 % | AFUE | \$0.91 |

Cost per 100,000 Btus delivered as useable heat

British Thermal Unit (Btu) is the amount of energy needed to raise the temperature of 1 pound of water 1° F.

Based on altitude and atmospheric pressure in Helena, MT

1,000 Btu = 1 cubic foot

1,000,000 Btu = 1 dekatherm

100,000 Btu = 1 therm

\$0.333011 per therm natural gas supply

The fuel comparisons shown are based on NorthWestern Energy's delivery and supply rates for electricity and natural gas and are subject to change. Monthly meter charges and/or tank rental charges are not included in the comparisons and need to be included if calculating a change in fuel sources. If you are comparing costs to other fuels or other energy providers, please adjust for fuel or rate cost difference applicable to your market area, and any delivery charge.

For a list of natural gas supply costs in Montana by supplier visit:

https://psc.mt.gov/_docs/Energy/pdf/2023-Gas-and-Electric-Rate-Summary.pdf