

Fuel Heating Cost Comparison (MT)

December 2011

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	\$0.100/kWh	\$2.93	Baseboard	100%	\$2.93
Electric	0.0529/kWh	\$0.100/kWh	\$1.89	Air-Air Heat Pump	1.55 COP	\$1.89
Electric	0.1024/kWh	\$0.100/kWh	\$0.98	Earth-Air Heat Pump	3 COP	\$0.98
Propane	0.915/Gal.	\$2.26/Gal.	\$2.47	Furnace	80% AFUE	\$3.09
Propane	0.915/Gal.	\$2.26/Gal.	\$2.47	Furnace	90% AFUE	\$2.74
Propane (Townsend)	0.915/Gal.	\$2.17/Gal.	\$2.37	Furnace	80% AFUE	\$2.96
Propane (Townsend)	0.915/Gal.	\$2.17/Gal.	\$2.37	Furnace	90% AFUE	\$2.63
#2 Oil	1.39/Gal.	\$3.01/Gal.	\$2.17	Furnace	72% AFUE	\$3.01
Pellets	150/Ton	\$250/Ton	\$1.67	Stove	80% AFUE	\$2.08
Coal	171.4/Ton	\$85/Ton	\$0.50	Furnace	70% AFUE	\$0.71
Natural Gas	1/Therm	\$0.863/Therm	\$0.86	Furnace	80% AFUE	\$1.08
Natural Gas	1/Therm	\$0.863/Therm	\$0.86	Furnace	90% AFUE	\$0.96
Natural Gas	1/Therm	\$0.863/Therm	\$0.86	Furnace	64% AFUE	\$1.35

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

The fuel comparisons shown are based on NorthWestern Energy's 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.