

Energy Fundamentals



Thermal Values

Natural Gas

- 1 Cubic Foot = 950 to 1150 Btu
- 1 CCF = 100 Cubic Feet
- 1 MCF = 1,000 Cubic Feet
- 1 Therm = 100,000 Btu
- 1 CCF is approx 1 Therm

Fuel Oil

- Kerosene = 134,000 Btu/Gallon
- Number 2 = 140,000 Btu/Gallon
- Number 6 = 152,000 Btu/Gallon

Propane

- LPG = 91,600 to 95,000 Btu/Gallon

1 BTU: Heat required to raise the temperature of 1 pound of water by 1 degree Fahrenheit

Electricity

- 1 kW = 1000 Watts
- 1 kWh = 3413 Btu

Steam

- 10 PSIG = 1000 Btu/Lb.
- 100 PSIG = 1100 Btu/Lb.

Coal

- Lignite = 11,000 Btu/Lb.
- Bituminous = 14,000 Btu/Lb.
- Anthracite = 13,900 Btu/Lb.
- Sub-bituminous = 12,600 Btu/Lb.

Miscellaneous

- Wood = 8,500 Btu/Lb
- U₂₃₅ = 75,000,000 Btu/gram