

BTU Cost Comparison

KW= Kilowatt

BTUH= BTU's/Hour

KWH=Kilowatts/Hour

1 BTU= the Energy Needed to Raise 1 Pound of Water 1 degree F.

BTU= British Thermal Unit

1000 Watts=1KW

1 KWH=3413 BTUH

BTU Contents of Fuels

Natural Gas=100,000 BTU/Therm

Propane=91,500 BTU/gal.

Fuel Oil=140,000 BTU/gal.

Electricity=3413 BTU/KWH

For every Kilowatt per hour input into a geothermal unit, you get an equivalent of 12,000 BTUH heat output. Most of the heat is being extracted from the earth.

Ground Source Heat Pump @ 5.0 COP= 12,000BTUH/KWH
at a cost of 2.4 cents/12,000 BTUH

Ground Source Heat Pump @ 3.4 COP = 12,000 BTUH/KWH
at a cost of 3.5 cents/KWH 12,000 BTUH

Natural Gas Furnace @ 90% Efficiency=90,000 BTU's/Therm
Nat. Gas at \$.75/Therm. = 10 cents/12,000 BTUH

Propane Furnace @ 90% Efficiency=82,350 BTU's/gal.
Propane at \$1.10/gal = 16 cents/12,000BTUH

Fuel Oil Furnace @ 80% Efficiency=112,000 BTU's/gal.
Fuel Oil at \$1.50/gal. = 16.07 cents/12,000BTUH

Electric Resistance Heat @ 100% Efficiency=3413BTUH/1KWH
Electricity at 3.5 cents/KWH 12.3 cents/12,000BTUH

Your rates may be different, and can be adjusted accordingly.

C.O.P.= Coefficient Of Performance BTUH output /BTUH input.