

FUEL COST COMPARISON CHART

Natural gas, LP gas, and fuel oil cost calculated on the basis of 75% efficiency. Electricity cost calculated on the basis of 98% efficiency.

Natural Gas 100,000 BTU/Therm		LP Gas 93,000 BTU/Gallon		Fuel Oil 140,000 BTU/Gallon		Electricity 3,412 BTU/KW	
Cost/Therm	Cost/Hr. per HP	Cost/Gal.	Cost/Hr. per HP	Cost/Gal.	Cost/Hr. per HP	Cost/KW	Cost/Hr. per HP
\$0.55	\$0.25	\$0.55	\$0.26	\$0.80	\$0.08	\$0.050	\$0.49
\$0.60	\$0.27	\$0.60	\$0.29	\$0.85	\$0.09	\$0.052	\$0.51
\$0.65	\$0.29	\$0.65	\$0.31	\$0.90	\$0.10	\$0.054	\$0.53
\$0.70	\$0.31	\$0.70	\$0.34	\$0.95	\$0.11	\$0.056	\$0.55
\$0.75	\$0.33	\$0.75	\$0.36	\$1.00	\$0.11	\$0.058	\$0.57
\$0.80	\$0.36	\$0.80	\$0.38	\$1.05	\$0.12	\$0.060	\$0.59
\$0.85	\$0.38	\$0.85	\$0.41	\$1.10	\$0.13	\$0.062	\$0.61
\$0.90	\$0.40	\$0.90	\$0.43	\$1.15	\$0.14	\$0.064	\$0.63
\$0.95	\$0.42	\$0.95	\$0.46	\$1.20	\$0.15	\$0.066	\$0.65
\$1.00	\$0.45	\$1.00	\$0.48	\$1.25	\$0.15	\$0.068	\$0.67
\$1.05	\$0.47	\$1.05	\$0.50	\$1.30	\$0.16	\$0.070	\$0.69
\$1.10	\$0.49	\$1.10	\$0.53	\$1.35	\$0.17	\$0.072	\$0.71
\$1.15	\$0.51	\$1.15	\$0.55	\$1.40	\$0.18	\$0.074	\$0.73
\$1.20	\$0.54	\$1.20	\$0.58	\$1.45	\$0.18	\$0.076	\$0.74
\$1.25	\$0.56	\$1.25	\$0.60	\$1.50	\$0.19	\$0.078	\$0.76
\$1.30	\$0.58	\$1.30	\$0.62	\$1.55	\$0.20	\$0.080	\$0.78
\$1.35	\$0.60	\$1.35	\$0.65	\$1.60	\$0.21	\$0.082	\$0.80
\$1.40	\$0.62	\$1.40	\$0.67	\$1.65	\$0.21	\$0.084	\$0.82
\$1.45	\$0.65	\$1.45	\$0.70	\$1.70	\$0.22	\$0.086	\$0.84
\$1.50	\$0.67	\$1.50	\$0.72	\$1.75	\$0.23	\$0.088	\$0.86
\$1.55	\$0.69	\$1.55	\$0.74	\$1.80	\$0.24	\$0.090	\$0.88
\$1.60	\$0.71	\$1.60	\$0.77	\$1.85	\$0.24	\$0.092	\$0.90
\$1.65	\$0.74	\$1.65	\$0.79	\$1.90	\$0.25	\$0.094	\$0.92
\$1.70	\$0.76	\$1.70	\$0.82	\$1.95	\$0.26	\$0.096	\$0.94
\$1.75	\$0.78	\$1.75	\$0.84	\$2.00	\$0.27	\$0.098	\$0.96
\$1.80	\$0.80	\$1.80	\$0.86	\$2.05	\$0.28	\$0.100	\$0.98
\$1.85	\$0.83	\$1.85	\$0.89	\$2.10	\$0.28	\$0.102	\$1.00
\$1.90	\$0.85	\$1.90	\$0.91	\$2.15	\$0.29	\$0.104	\$1.02
\$1.95	\$0.87	\$1.95	\$0.94	\$2.20	\$0.30	\$0.106	\$1.04
\$2.00	\$0.89	\$2.00	\$0.96	\$2.25	\$0.31	\$0.108	\$1.06
\$2.05	\$0.91	\$2.05	\$0.98	\$2.30	\$0.31	\$0.110	\$1.08
\$2.10	\$0.94	\$2.10	\$1.01	\$2.35	\$0.32	\$0.112	\$1.10
\$2.15	\$0.96	\$2.15	\$1.03	\$2.40	\$0.33	\$0.114	\$1.12
\$2.20	\$0.98	\$2.20	\$1.06	\$2.45	\$0.34	\$0.116	\$1.14
\$2.25	\$1.00	\$2.25	\$1.08	\$2.50	\$0.34	\$0.118	\$1.16
\$2.30	\$1.03	\$2.30	\$1.10	\$2.55	\$0.35	\$0.120	\$1.18
\$2.35	\$1.05	\$2.35	\$1.13	\$2.60	\$0.36	\$0.122	\$1.20
\$2.40	\$1.07	\$2.40	\$1.15	\$2.65	\$0.37	\$0.124	\$1.22
\$2.45	\$1.09	\$2.45	\$1.18	\$2.70	\$0.37	\$0.126	\$1.23
\$2.50	\$1.12	\$2.50	\$1.20	\$2.75	\$0.38	\$0.128	\$1.25
\$2.55	\$1.14	\$2.55	\$1.22	\$2.80	\$0.39	\$0.130	\$1.27
\$2.60	\$1.16	\$2.60	\$1.25	\$2.85	\$0.40	\$0.132	\$1.29
\$2.65	\$1.18	\$2.65	\$1.27	\$2.90	\$0.41	\$0.134	\$1.31
\$2.70	\$1.21	\$2.70	\$1.30	\$2.95	\$0.41	\$0.136	\$1.33
\$2.75	\$1.23	\$2.75	\$1.32	\$3.00	\$0.42	\$0.138	\$1.35
\$2.80	\$1.25	\$2.80	\$1.34	\$3.05	\$0.43	\$0.140	\$1.37
\$2.85	\$1.27	\$2.85	\$1.37	\$3.10	\$0.44	\$0.142	\$1.39
\$2.90	\$1.29	\$2.90	\$1.39	\$3.15	\$0.44	\$0.144	\$1.41
\$2.95	\$1.32	\$2.95	\$1.42	\$3.20	\$0.45	\$0.146	\$1.43
\$3.00	\$1.34	\$3.00	\$1.44	\$3.25	\$0.46	\$0.148	\$1.45



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MISCELLANEOUS GAS INFORMATION

Natural Gas
1,012 BTUs per cubic foot
n/a
n/a
2.50 pounds per gallon at 60 degrees F
n/a
n/a
0.6 specific gravity of vapor

Propane Gas
2,516 BTUs per cubic foot
21,591 BTUs per pound
91,690 BTUs per gallon
4.24 pounds per gallon at 60 degrees F
36.39 cubic feet per gallon
8.55 cubic feet per pound
1.53 specific gravity of vapor

GAS PRESSURE COMPARISON CHART

Pressure (water column inches)	Pressure (ounces)
1"	0.578
2"	1.156
3"	1.734
4"	2.312
4.5"	2.599
5"	2.890
6"	3.468
7"	4.046
8"	4.624
9"	5.202
10"	5.780
11"	6.358
12"	6.936
13"	7.514
14"	8.092

Pressure (water column inches)	Pressure (ounces)
15"	8.670
16"	9.248
17"	9.826
18"	10.404
19"	10.982
20"	11.560
21"	12.138
22"	12.716
23"	13.294
24"	13.872
25"	14.450
26"	15.028
27"	15.606
27.68"	16.000

AIR VENT OR LOUVER - FREE AREA FOR BOILER ROOM

1. If air is taken from well ventilated-surrounding rooms (not equipped with exhaust fans) a minimum of one square inch of area is required for each 1,000 BTUs input to the boiler and other fuel-fired appliances in the room.
2. If air is taken directly from outside the building, provide louver with a minimum of free area of one square inch for each 1,000 BTUs (4,000 BTUs for power burners) input to the boiler and other fuel-fired equipment in the room.
3. When the boiler is located in a confined space, provide two permanent openings, each sized as above, one in or near the top of the boiler room and one in or near the bottom of the room.

Note: A confined space is defined as any room or enclosure which has a volume less than 16 times the total volume of the boiler or boilers located in the space. If ceiling height is greater than 8 feet, the volume shall be figured based on the basis of a ceiling height of eight feet.