

Cost Per Million BTU (\$/MMBTU)



ELECTRICITY 3,413 BTU/kWh

System Efficiency (C.O.P. or EF)	\$/kWh	\$ 0.042	\$ 0.046	\$ 0.049	\$ 0.051	\$ 0.060	\$ 0.076	\$ 0.086	\$ 0.090	\$ 0.095	\$ 0.100	\$ 0.110	\$ 0.125
	100%	12.31	13.48	14.36	14.94	17.58	22.27	25.20	26.37	27.83	29.30	32.23	36.62
200%	6.15	6.74	7.18	7.47	8.79	11.13	12.60	13.18	13.92	14.65	16.11	18.31	
250%	4.92	5.39	5.74	5.98	7.03	8.91	10.08	10.55	11.13	11.72	12.89	14.65	
275%	4.47	4.90	5.22	5.43	6.39	8.10	9.16	9.59	10.12	10.65	11.72	13.32	
300%	4.10	4.49	4.79	4.98	5.86	7.42	8.40	8.79	9.28	9.77	10.74	12.21	
350%	3.52	3.85	4.10	4.27	5.02	6.36	7.20	7.53	7.95	8.37	9.21	10.46	
375%	3.28	3.59	3.83	3.98	4.69	5.94	6.72	7.03	7.42	7.81	8.59	9.77	

NATURAL GAS 100,000 BTU/therm

System Efficiency (AFUE or EF)	\$/ccf	\$ 0.55	\$ 0.60	\$ 0.70	\$ 0.86	\$ 0.90	\$ 0.98	\$ 1.00	\$ 1.10	\$ 1.20	\$ 1.30	\$ 1.45	1.50
	55%	10.00	10.91	12.73	15.64	16.36	17.82	18.18	20.00	21.82	23.64	26.36	27.27
60%	9.17	10.00	11.67	14.33	15.00	16.33	16.67	18.33	20.00	21.67	24.17	25.00	
80%	6.88	7.50	8.75	10.75	11.25	12.25	12.50	13.75	15.00	16.25	18.13	18.75	
90%	6.11	6.67	7.78	9.56	10.00	10.89	11.11	12.22	13.33	14.44	16.11	16.67	
92%	5.98	6.52	7.61	9.35	9.78	10.65	10.87	11.96	13.04	14.13	15.76	16.30	
95%	5.79	6.32	7.37	9.05	9.47	10.32	10.53	11.58	12.63	13.68	15.26	15.79	

PROPANE 91,500 BTU/gallon

System Efficiency (AFUE or EF)	\$/gal	\$ 1.15	\$ 1.25	\$ 1.35	\$ 1.45	\$ 1.55	\$ 1.70	\$ 1.90	\$ 2.00	\$ 2.10	\$ 2.30	\$ 2.40	\$ 2.50
	55%	22.85	24.84	26.83	28.81	30.80	33.78	37.75	39.74	41.73	45.70	47.69	49.68
60%	20.95	22.77	24.59	26.41	28.23	30.97	34.61	36.43	38.25	41.89	43.72	45.54	
80%	15.71	17.08	18.44	19.81	21.17	23.22	25.96	27.32	28.69	31.42	32.79	34.15	
90%	13.96	15.18	16.39	17.61	18.82	20.64	23.07	24.29	25.50	27.93	29.14	30.36	
92%	13.66	14.85	16.04	17.22	18.41	20.19	22.57	23.76	24.95	27.32	28.51	29.70	
95%	13.23	14.38	15.53	16.68	17.83	19.56	21.86	23.01	24.16	26.46	27.61	28.76	

FUEL OIL 138,700 BTU/gallon

System Efficiency (AFUE or EF)	\$/gal	\$ 2.05	\$ 2.70	\$ 2.90	\$ 3.00	\$ 3.15	\$ 3.30	\$ 3.50	\$ 3.70	\$ 3.90	\$ 4.10	\$ 4.30	\$ 4.50
	55%	26.87	35.39	38.02	39.33	41.29	43.26	45.88	48.50	51.12	53.75	56.37	58.99
60%	24.63	32.44	34.85	36.05	37.85	39.65	42.06	44.46	46.86	49.27	51.67	54.07	
80%	18.48	24.33	26.14	27.04	28.39	29.74	31.54	33.35	35.15	36.95	38.75	40.56	
85%	17.39	22.90	24.60	25.45	26.72	27.99	29.69	31.38	33.08	34.78	36.47	38.17	

Co-efficient of Performance (C.O.P.) - The same as the efficiency stated as a ratio of work or useful energy output of a system vs. the amount of energy inputted into the system.

Annual Fuel Utilization Efficiency (AFUE)- The measure of annual efficiency of a residential heating furnace or boiler. Accounts for the cycling on/off operation and associated energy losses of the heating unit as it responds to changes in the load as affected by other factors. • **Energy Factor (EF)** - The measure of the overall efficiency of a variety of appliances. Water heater efficiencies are rated by EF.