

Domestic Fuel Cost Comparison (Home)

Effective 1/1/2013							
ELECTRIC HEAT		100% Efficient		200% Efficient		330% Efficient	
COST PER KWH	(Residential)	\$0.054	\$0.1023	\$0.054	\$0.1023	\$0.054	\$0.1023
	Efficiency						
NATURAL GAS	80%	\$1.27	\$2.40	\$0.63	\$1.20	\$0.38	\$0.73
	90%	\$1.42	\$2.70	\$0.71	\$1.35	\$0.43	\$0.82
LP	80%	\$1.16	\$2.19	\$0.58	\$1.10	\$0.35	\$0.66
	90%	\$1.30	\$2.47	\$0.65	\$1.23	\$0.39	\$0.75
FUEL OIL	60%	\$1.32	\$2.49	\$0.66	\$1.25	\$0.40	\$0.76
	85%	\$1.87	\$3.53	\$0.93	\$1.77	\$0.57	\$1.07

Non-domestic Fuel Cost Comparison (Garage, Shop, etc)

Effective 1/1/2013							
ELECTRIC HEAT		100% Efficient		200% Efficient		330% Efficient	
COST PER KWH	(Residential)	\$0.061	\$0.1023	\$0.061	\$0.1023	\$0.061	\$0.1023
	Efficiency						
NATURAL GAS	80%	\$1.43	\$2.40	\$0.71	\$1.20	\$0.43	\$0.73
	90%	\$1.61	\$2.70	\$0.80	\$1.35	\$0.49	\$0.82
LP	80%	\$1.31	\$2.19	\$0.65	\$1.10	\$0.40	\$0.66
	90%	\$1.47	\$2.47	\$0.74	\$1.23	\$0.45	\$0.75
FUEL OIL	60%	\$1.49	\$2.49	\$0.74	\$1.25	\$0.45	\$0.76
	85%	\$2.11	\$3.53	\$1.05	\$1.77	\$0.64	\$1.07

FORMULA

(Cost per kWh X efficiency of fossil fuel X BTU of fossil fuel) / (3413 X efficiency of electric)

KEY		ELECTRIC HEAT EFFICIENCIES		LOAD MANAGEMENT HEATING RATES	
1 kWh	3,413 BTU	Resistance heat	100%	Domestic dual fuel	\$0.054
1 gal #2 fuel oil	138,700 BTU	Air-to-air heat pump	200%	Domestic short-term storage	\$0.054
1 gal LP gas	91,500 BTU	Geothermal heat pump	330%	Domestic Long-term storage	\$0.044
1 CCF natural gas	100,000 BTU			Non-domestic dual fuel	\$0.061
				Non-domestic short term storage	\$0.061
				Non-domestic long-term storage	\$0.044

HOME EXAMPLE

An 80% efficient furnace burns LP gas. The price of LP would have to be \$1.16 per gallon to make it as economical as 100% efficient electric resistance heat at the load management rate of \$0.054 per kWh. At the regular rate of \$0.1023 per kWh, LP would have to cost \$2.19 per gallon. Using the same example, the price of LP gas would have to be \$0.35 per gallon to compare to a 330% efficient geothermal heat pump at the load management rate of \$0.054 per kWh.

Service charges and tank rental fees are not included in heating costs on the charts. When comparing monthly heating costs, these applicable costs should be included.