

Eau Claire Energy Cooperative

COMPARE ENERGY COSTS - GEOTHERMAL HEAT PUMPS TO FOSSIL FUELS HEATING COST COMPARISON

Geothermal Heat Pump (GHP) with a COP of 3.5 price/kWh	Fuel Oil 80% efficient price/gallon	LP 92% efficient price/gallon	Natural Gas 92% efficient price/therm	Cost per Million BTU	
\$0.084	\$0.79	\$0.59	\$0.65	\$7.03	* Off-Peak (Dual Fuel & Heat Storage) base rate Oct. - May billing periods
\$0.086	\$0.81	\$0.61	\$0.66	\$7.20	
\$0.088	\$0.83	\$0.62	\$0.68	\$7.37	
\$0.090	\$0.84	\$0.63	\$0.69	\$7.53	
\$0.092	\$0.86	\$0.65	\$0.71	\$7.70	
\$0.094	\$0.88	\$0.66	\$0.72	\$7.87	
\$0.096	\$0.90	\$0.68	\$0.74	\$8.04	
\$0.098	\$0.92	\$0.69	\$0.75	\$8.20	
\$0.100	\$0.94	\$0.70	\$0.77	\$8.37	
\$0.102	\$0.96	\$0.72	\$0.79	\$8.54	
\$0.104	\$0.98	\$0.73	\$0.80	\$8.71	
\$0.106	\$0.99	\$0.75	\$0.82	\$8.87	
\$0.108	\$1.01	\$0.76	\$0.83	\$9.04	
\$0.110	\$1.03	\$0.78	\$0.85	\$9.21	* General Purpose base rate Oct. - May billing periods
\$0.112	\$1.05	\$0.79	\$0.86	\$9.38	
\$0.114	\$1.07	\$0.80	\$0.88	\$9.54	
\$0.116	\$1.09	\$0.82	\$0.89	\$9.71	
\$0.118	\$1.11	\$0.83	\$0.91	\$9.88	
\$0.120	\$1.13	\$0.85	\$0.92	\$10.05	
\$0.122	\$1.14	\$0.86	\$0.94	\$10.21	
\$0.124	\$1.16	\$0.87	\$0.96	\$10.38	

<u>Fuel</u>	<u>BTU Heat Content</u>
GHP/COP of 3.5	11,945/kWh
Fuel Oil	140,000/gal
LP	91,500/gal
Natural Gas	100,000/therm

Example: If you are comparing a geothermal heat pump with a COP of 3.5, at \$0.084/kWh (8.4 cents/kWh), to a 92% efficient LP system, you would have to buy LP at \$0.59/gal., or less, to have as low an operating cost as the geothermal heat pump.

* ECEC rates subject to change at any time