Eau Claire Energy Cooperative

COMPARE ENERGY COSTS - GEOTHERMAL HEAT PUMPS TO FOSSIL FUELS

Geothermal					
Heat Pump (GHP)	Fuel Oil	LP	Natural Gas	Cost per	
with a COP of 4.3	65% efficient	92% efficient	92% efficient	Million BTU	
price/kWh	price/gallon	price/gallon	price/therm		
\$0.062	\$0.38	\$0.36	\$0.39	\$4.22	
\$0.064	\$0.40	\$0.37	\$0.40	\$4.36	
\$0.066	\$0.40 \$0.41	\$0.38	\$0.41	\$4.50 \$4.50	
\$0.068	\$0.42	\$0.39	\$0.43	\$4.63	
\$0.070	\$0.42 \$0.43	\$0.40	\$0.44 \$0.44	\$4.77	
\$0.070	\$0.45	\$0.41	\$0. 45	\$4.91	
\$0.072 \$0.073	\$0.45	\$0.42	\$0.46	\$4.97	* Off-Peak (Dual Fuel &
\$0.074	\$0.46	\$0.42	\$0.46	\$5.04	Heat Storage) base rate
\$0.074	\$0.47	\$0.44	\$0.48	\$5.18	Sept. 21 - May 20
\$0.078	\$0.48	\$0.45	\$0.49	\$5.31	(after NWPA Rate Credit)
\$0.080	\$0.50	\$0.46	\$0.50	\$5.45	(arter NVVI A Nate Orealt)
\$0.082	\$0.51	\$0.47	\$0.51	\$5.59	
\$0.084	\$0.52	\$0.48	\$0.53	\$5.72	
\$0.086	\$0.53	\$0.49	\$0.54	\$5.86	
\$0.088	\$0.55 \$0.55	\$0.49 \$0.50	\$0.55	\$6.00	
\$0.090	\$0.56	\$0.52	\$0.56	\$6.13	
\$0.092	\$0.57	\$0.53	\$0.58	\$6.27	
\$0.092	\$0.58	\$0.54	\$0.59	\$6.41	
\$0.096	\$0.60	\$0.55	\$0.60	\$6.54	
\$0.098	\$0.61	\$0.56	\$0.61	\$6.68	
\$0.100	\$0.62	\$0.57	\$0.63	\$6.81	
\$0.102	\$0.63	\$0.59	\$0.64	\$6.95	
\$0.102	\$0.64	\$0.59 \$0.59	\$0.65	\$7.06	
\$0.10 4 \$0.106	\$0.66	\$0.59 \$0.61	\$0.66	\$7.00 \$7.22	
\$0.100 \$0.107	\$0.66	\$0.61	\$0.67	\$7.22 \$7.29	* General Purpose
\$0.107	\$0.67	\$0.62	\$0.68	\$7.36	base rate
\$0.100 \$0.110	\$0.68	\$0.63	\$0.69	\$7.50 \$7.52	Sept. 21 - May 20
\$0.112	\$0.69	\$0.64	\$0.70	\$7.63	(after NWPA Rate Credit)
\$0.114	\$0.71	\$0.65	\$0.71	\$7.77	(and itti A hate ordall)
\$0.116	\$0.72	\$0.67	\$0.73	\$7.90	
\$0.118	\$0.73	\$0.68	\$0.74	\$8.04	
\$0.120	\$0.74	\$0.69	\$0.75	\$8.18	
\$0.122	\$0.76	\$0.70	\$0.76	\$8.31	
\$0.124	\$0.77	\$0.71	\$0.78	\$8.45	

<u>Fuel</u>	BTU Heat Content	Example: If you a
GHP/COP of 4.3	14,676/kWh	COP of
Fuel Oil	140,000/gal	65% effi
LP	91,500/gal	fuel oil a
Natural Gas	100,000/therm	operatin

Example: If you are comparing a geothermal heat pump with a COP of 4.3, at \$0.073/kWh (7.3 cents/kWh), to a 65% efficient fuel oil system, you would have to buy fuel oil at \$0.45/gal., or less, to have as low an operating cost as the geothermal heat pump.

^{*} ECEC rates subject to change at any time
For more information on the NWPA Rate Credit go to www.ecec.com or call ECEC at 715-832-1603