

IT'S A DECISION YOU CAN LIVE WITH.

Energy Efficient Heat Pump Heating

An electric heat pump delivers increased comfort, safety and economy over traditional heating and cooling systems.

Heating and cooling cost comparisons are prepared as estimates for comparative purposes.

Annual Estimated Heating and Cooling Cost Comparisons

Size of Home in Square Feet	BASE CASE	SAMPLE CASE #1		SAMPLE CASE #2	
	Electric Air Conditioning with Gas Heat	Add-on Heat Pump with Gas Heat		Air-to-Air Heat Pump Total Electric	
1,000	\$694	\$466	\$228 Annual Savings*	\$409	\$285 Annual Savings*
1,500	\$1,042	\$700	\$342 Annual Savings*	\$614	\$428 Annual Savings*
2,500	\$1,689	\$1,066	\$623 Annual Savings*	\$922	\$767 Annual Savings*
3,000	\$2,047	\$1,309	\$738 Annual Savings*	\$1,136	\$910 Annual Savings*
5,000	\$3,377	\$2,129	\$1,247 Annual Savings*	\$1,842	\$1,535 Annual Savings*

* Compared to natural gas heat with electric air conditioning

Natural Gas Cost per cf:

Fuel Cost Adjustment per kWh:

Additional information is available under the Energy Efficiency section of our site.

Energy Cost Estimates Based on the Following:

1. Average household cooling and heating energy use, BTU heat gain and heat loss at 30 BTU/SF (w/88 percent furnace 33.6 BTU/SF).
2. Kansas City regional weather data.
3. Seasonal Energy Efficiency Ratio (SEER) of 14 for central air conditioners.
4. Heating Season Performance Factor (HSPF) of 8.5 for heat pumps.
5. Annual Fuel Utilization Efficiency (AFUE) of 88 percent for natural gas furnaces, (times 1.12 for furnace capacity).
6. KPL Gas Service natural gas rate of \$9.4826/MCF (2008-2009 average winter season cost).
7. Cooling run-time hours; 1,200 - heating run time hours; 1,600 (DF systems HP at 66 percent of run time).
8. BPU summer average electric rate w/fuel, (1,000sf through 2,500sf homes of \$0.0817/kWh), and (3,000sf thru 5,000sf homes of \$0.08886/kWh).
9. BPU winter electric rate w/fuel, above 1,000 kWh/month, of \$0.0576/kWh.

Additional savings can be achieved by using higher efficiency heat pumps.

Disclaimer:

These estimates are prepared based on average construction techniques, and normal heating and cooling seasons. Please consult your builder or heating and cooling contractor for a comprehensive energy evaluation and operating cost projection on the specific home you consider to purchase.

BPU Heat Pump Hotline Phone Number: (913) 573-9988

