

Energy and Heating Cost Comparison Chart (Winter 2016-17; South Carolina)

	Propane		Natural Gas		Heat Pump (Air-Source)		Heat Pump (Geothermal)		Electric Resistance		Heating Oil	
Appliance Efficiency	0.8	Avg. Efficiency	0.8	Avg. Efficiency	7.30	HSPF****	3.0	COP	0.95	Avg. Efficiency	0.8	Avg. Efficiency
Fuel/Energy Price	2.845	\$/gal.*	0.8449	\$/therm**	0.0869	\$/kwh***	0.0869	\$/kwh***	0.0869	\$/kwh***	2.26	\$/gal.*-*
Heat Value	91,333	BTU/gal	100,000	BTU/therm					3,413	BTU/kwh	138,690	BTU/gal
Energy Input/Appliance Output	1.369	gal/therm	1.25	therm/therm	13.70	kwh/therm	9.77	kwh/therm	29.30	kwh/therm	0.9013	gal/therm
Operating Cost/Therm of Heat Produced	3.89	\$/therm	1.06	\$/therm	1.19	\$/therm	0.85	\$/therm	2.68	\$/therm	2.04	\$/therm
Winter Heating Cost*-**	\$ 3,115		\$ 845		\$ 952		\$ 679		\$ 2,144		\$ 1,632	

* U.S. Energy Inform. Administration, average Lower Atlantic Region residential propane spot price, 11/7/2016

** Source: Piedmont Natural Gas, effective 11/1/2016, SC residential standard rate Nov-March

*** Source: Duke Energy, effective 10/1/2016, all-electric RE schedule residential rate (avg. for over and under 1,000 kWh rates)

****Typical 7.7 HSPF air-source heat pump (per DOE a 7.7 HSPF correlates to 7.3 actual in GSP and Midlands, SC)

- U.S. Energy Information Administration, average Lower Atlantic Region residential heating oil spot price, 11/7/2016

*-** based on 800 therms of total seasonal heat.

Notes: 1 therm = 100,000 Btu

