

## Energy and Heating Cost Comparison Chart (Winter 2019-20; 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	2.594	\$/gal.*	0.822	\$/therm**	0.112	\$/kwh***	0.112	\$/kwh***	0.112	\$/kwh***	2.79	\$/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	3.55	\$/therm	1.03	\$/therm	1.53	\$/therm	1.09	\$/therm	3.45	\$/therm	2.51	\$/therm
Winter Heating Cost*-**	\$ 2,840		\$ 822		\$ 1,227		\$ 875		\$ 2,763		\$ 2,012	

\* U.S. Energy Inform. Administration, average Lower Atlantic Region residential propane spot price, 11/6/2019

\*\* Source: Piedmont Natural Gas, effective 11/1/2019, SC residential standard rate Nov-March

\*\*\* Source: Duke Energy, effective 10/1/2019, 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, 11/6/2019

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

Notes: 1 therm = 100,000 Btu

