

Energy and Heating Cost Comparison Chart (Winter 2019-20; Western North 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	6.50	HSPF****	3.0	COP	0.95	Avg. Efficiency	0.8	Avg. Efficiency
Fuel/Energy Price	2.594	\$/gal.*	0.955	\$/therm**	0.103	\$/kwh***	0.103	\$/kwh***	0.103	\$/kwh***	2.790	\$/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	15.38	kwh/therm	9.77	kwh/therm	29.30	kwh/therm	0.9013	gal/therm
Operating Cost/Therm of Heat Produced	3.55	\$/therm	1.19	\$/therm	1.58	\$/therm	1.01	\$/therm	3.18	\$/therm	2.51	\$/therm
Winter Heating Cost*-*	\$ 3,550		\$ 1,194		\$ 1,585		\$ 1,006		\$ 3,177		\$ 2,515	

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

** Source: Piedmont Natural Gas, Effective 11/1/2019, NC residential rate Nov-March

*** Source: Duke Energy, effective 9/1/2019, RES-56 schedule residential rate for NC Nov.-June

****Typical 7.7 HSPF air-source heat pump (per DOE a 7.7 HSPF correlates to 6.5 actual in Asheville)

- U.S. Energy Information Administration, average Lower Atlantic Region residential heating oil spot price, 11/6/2019

- based on 1,000 therms of total seasonal heat.

Notes: 1 therm = 100,000 Btu



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