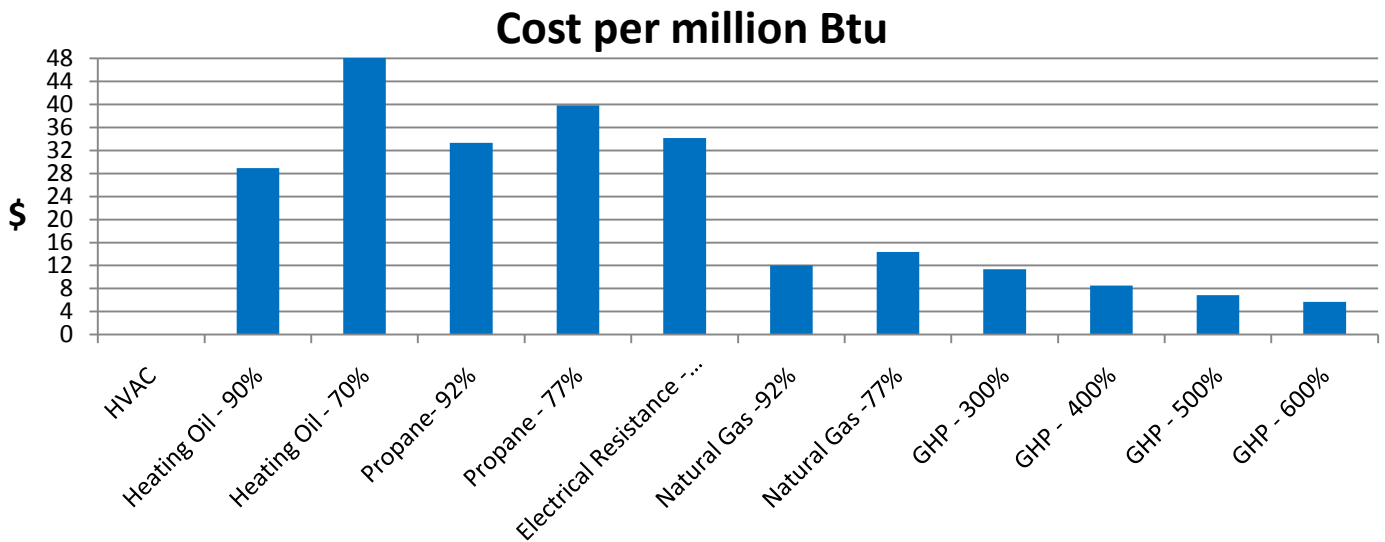


Heating Cost Comparisons of HVAC systems

System	Efficiency	Cost/ million Btu
<i>Numbers provided by: EIA.DOE.GOV: U.S. energy information administration: Base year 2011 – Current National Averages</i>		
Heating Oil Boiler	70%	\$48.77
Heating Oil Boiler	90%	\$28.91
Propane Gas Boiler	77%	\$39.83
Propane Gas Boiler	92%	\$33.34
Electrical Resistance	100%	\$34.14
Natural Gas Boiler	77%	\$14.38
Natural Gas Boiler	92%	\$12.03
Geothermal Heating and Cooling	300%	\$11.38
Geothermal Heating and Cooling	400%	\$8.54
Geothermal Heating and Cooling	500%	\$6.83
Geothermal Heating and Cooling	600%	\$5.69

GHPs efficiencies range from 300-600%. Efficiencies are the result of a variety of variables (design, region, facility, geological conditions). When properly designed, GHPs efficiencies will range in the higher end of the spectrum. Current installations of GHPs are usually associated with efficiencies greater than 400%. Comparisons are based upon national averages and can vary based on utility rates, peak pricing, age of equipment, building use and other factors.



Cooling Cost Comparison of HVAC Systems

System	SEER	Cost/million Btu
<i>Numbers provided by: EIA.DOE.GOV: U.S. energy information administration: Base year 2011 – Current National Averages</i>		
Minimum Building Standard	13	\$8.15
Energy Star	14	\$7.57
High Efficiency Chiller	15	\$7.06
Low Efficiency GHPs	18	\$5.88
Mid Efficiency GHPs	25	\$4.24
High Efficiency GHPs	34	\$3.12

GHPs SEER ratings range from 18 - 34. SEER ratings are the result of a variety of variables (design, region, temperature range, geological conditions, and facility use). When properly designed, GHPs SEER ratings will range in the mid to high efficiency ranges. Current installations of GHPs are usually associated with SEER ratings greater than 25. Comparisons are based upon national averages and can vary based on utility rates, peak pricing, age of equipment, building use and other factors.

Cost per million Btu

