SPACE AND WATER HEATING COST COMPARISON—WASHINGTON

SPACE HEATING TYPE	UNIT	BTU PER UNIT	COST PER UNIT	EFFICIENCY	COST PER MILLION BTU	AMOUNT OF HEAT PER $1.00 SPENT
Natural Gas Furnace-80%	Therm	100,000	$0.81	80%	$10.13	98,765
Natural Gas Furnace-92%	Therm	100,000	$0.81	92%	$8.80	113,580
Natural Gas Furnace-95%	Therm	100,000	$0.81	95%	$8.53	117,284
Natural Gas Furnace-98%	Therm	100,000	$0.81	98%	$8.27	120,988
Fuel Oil Furnace-60%	Gallon	138,500	$3.24	60%	$38.99	25,648
Fuel Oil Furnace-90%	Gallon	138,500	$3.24	90%	$25.99	38,472
Electric Resistance	kWh	3,412	$0.082	100%	$24.03	41,610
Heat Pump-8.5 HSPF	kWh	3,412	$0.082	249%	$9.65	103,629
Heat Pump-9.0 HSPF	kWh	3,412	$0.082	264%	$9.11	109,725
Heat Pump-9.5 HSPF	kWh	3,412	$0.082	278%	$8.63	115,821
Heat Pump-10 HSPF	kWh	3,412	$0.082	293%	$8.20	121,917
Heat Pump-10.5 HSPF	kWh	3,412	$0.082	308%	$7.81	128,012
WATER HEATING TYPE	**UNIT**	**BTU PER UNIT**	**COST PER UNIT**	**EFFICIENCY**	**COST PER MILLION BTU**	**AMOUNT OF HEAT PER $1.00 SPENT**
NG Storage-code	Therm	100,000	$0.81	62%	$13.06	76,543
NG Storage-.67 EF	Therm	100,000	$0.81	67%	$12.09	82,716
NG Tankless-.8 EF	Therm	100,000	$0.81	80%	$10.13	98,765
NG Tankless-.95 EF	Therm	100,000	$0.81	95%	$8.53	117,284
Electric Storage-code	kWh	3,412	$0.082	90%	$26.70	37,449
Electric Storage-.95 EF	kWh	3,412	$0.082	95%	$25.30	39,529

WATER HEATER EF CALCULATION

Code Minimum EF

Elec (.97-.00132V)

NG (.67-.0019V)

HSPF CONVERSION TO COP

HSPF*.293=COP

Data estimates are based on estimated energy rates/cost per unit as of 11/18/19. Oil cost per unit based on fill of 200 gallons. COP shown is an average over a range of outside air temperatures.

NW Natural®

11/19

WHOLE HOME HEATING COMPARISON—WASHINGTON

Amount of heat per $1.00 spent

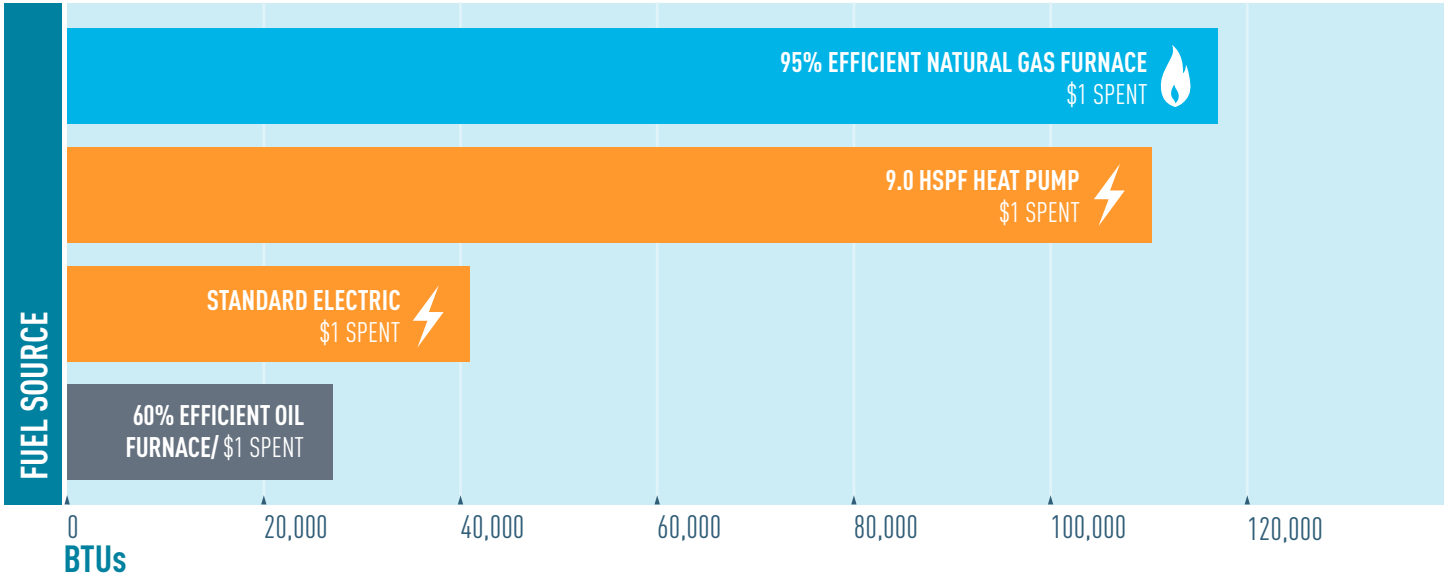
SPACE HEATING

Natural gas provides **MORE HEAT** per $1.00 spent than oil or electricity.

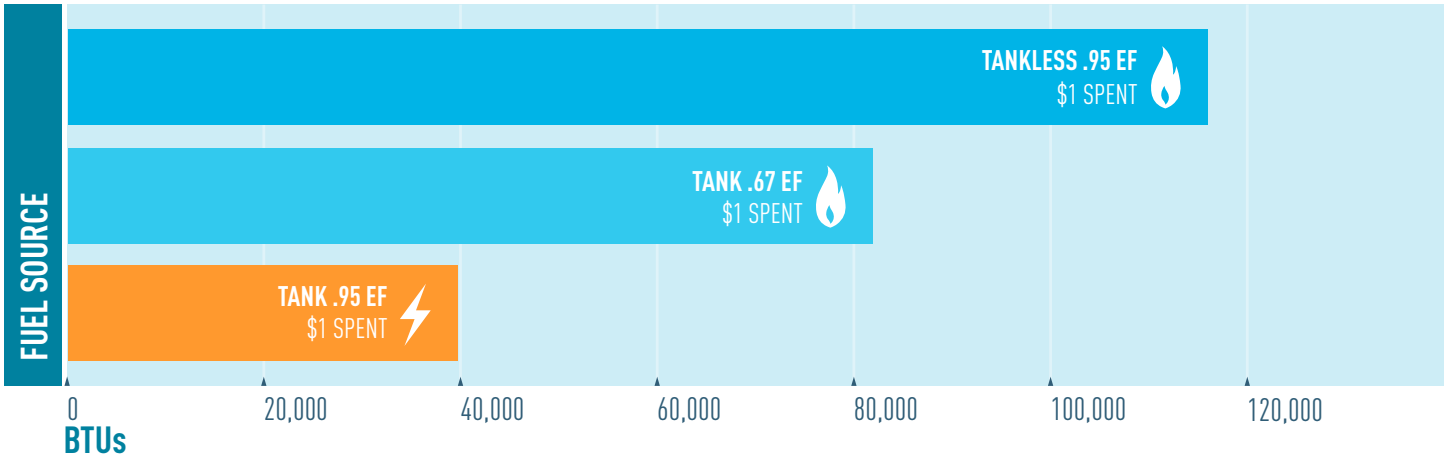
WATER HEATING

A natural gas tankless water heater provides **UP TO 66% MORE** heat per $1.00 spent than electricity, and a tanked water heater provides **UP TO 52% MORE** heat than electricity for the same $1.00.

SPACE HEATING BTUs PER $1.00



WATER HEATING BTUs PER $1.00



NW Natural®