

SINGLE-FAMILY HOME OPERATING COSTS: NATURAL GAS VS. RESIDENTIAL HEATING OIL, PROPANE AND ELECTRIC¹

Average costs for a three person, 2300 square foot single-family home in the DC metropolitan region utilizing space heating, water heating, cooking and drying.

Equipment Description	Estimated Annual Operating Costs			Savings if Converted to Natural Gas			Percent savings		
Space Heating	DC ^{2,6}	MD ³	VA ⁴	DC ^{2,6}	MD ³	VA ⁴	DC ^{2,6}	MD ³	VA ⁴
Natural Gas - High Efficiency Furnace, 97% AFUE	\$834	\$862	\$940						
Residential Heating Oil (#2) - Condensing Boiler 92.8% AFUE	\$1,679	\$1,750	\$1,842	\$845	\$888	\$902	50%	51%	49%
Propane - High Efficiency Furnace, 97% AFUE	\$1,441	\$1,908	\$2,055	\$607	\$1,046	\$1,115	42%	55%	54%
Electric - High Efficiency Heat Pump, 9 HSPF	\$934	\$1,017	\$975	\$100	\$155	\$35	11%	15%	4%
Water Heating									
Natural Gas - Condensing Tankless Water Heater, 0.95 EF	\$179	\$185	\$183						
Propane - Condensing Tankless Water Heater, 0.95 EF	\$309	\$409	\$400	\$130	\$224	\$217	42%	55%	54%
Electric - High-Performing Water Heater, 0.93 EF	\$544	\$549	\$472	\$365	\$365	\$289	67%	66%	61%
Cooking									
Natural Gas - Standard Cooktop, 40% Efficient	\$24	\$25	\$25						
Electric - Standard Cooktop, 74% Efficient	\$58	\$59	\$50	\$34	\$33	\$25	59%	57%	51%
Clothes Drying⁵									
Natural Gas - Standard Dryer, 2.67 EF	\$60	\$62	\$62						
Electric - Standard Dryer, 3.01 EF	\$128	\$130	\$111	\$68	\$67	\$50	53%	52%	45%

Notes:

- 1 All costs are obtained from the Energy Solutions Center, inc. (ESC) Residential Energy Calculation as of 3/25/2026 <https://esc.energydepot.com/user-information/home>
- 2 Washington DC data obtained by selecting District of Columbia/Washington in calculator
- 3 Maryland data obtained by selecting Maryland/Baltimore in calculator
- 4 Virginia data obtained by selecting Virginia/Sterling in the calculator
- 5 Clothes Drying costs are based on usage of 8 loads per week
- 6 Propane Costs in DC are included for comparative purposes only

