

Gas & Oil Heating: Estimating Costs with Changing Prices

We purchase fuel to heat our homes. Our heating system changes the fuel into heat.

Heat can be measured by using a term called a "BTU". (British Thermal Unit)

A BTU is a small unit of heat, comparable to the amount of heat from one wooden match.

An average Midwest home may use 60 to 80 million BTUs each winter.

The table below shows the cost of producing one million BTUs for home heating for three fuels.

The cost per million BTUs will depend on the heating system efficiency and the price of the fuel.

The "Cost per Million BTUs" is the best way to compare heating costs of all fuels and heating systems.

Natural Gas, Oil & Propane Estimates: Cost/Million BTUs										
Select the fuel, the furnace efficiency and your cost per unit of fuel.										
The dollar amount is your cost to purchase one million BTUs in this system.										
Cost per unit of fuel ↓	Natural Gas furnaces				Oil furnaces			LP (Propane) gas furnaces		
	60,000	80,000	90,000	95,000	84,000	98,000	119,000	58,500	72,000	81,000
	60%	80%	90%	95%	60%	70%	85%	65%	80%	90%
\$3.40	\$56.67	\$42.50	\$37.78	\$35.79	\$40.48	\$34.69	\$28.57	\$58.12	\$47.22	\$41.98
\$3.20	\$53.33	\$40.00	\$35.56	\$33.68	\$38.10	\$32.65	\$26.89	\$54.70	\$44.44	\$39.51
\$3.00	\$50.00	\$37.50	\$33.33	\$31.58	\$35.71	\$30.61	\$25.21	\$51.28	\$41.67	\$37.04
\$2.80	\$46.67	\$35.00	\$31.11	\$29.47	\$33.33	\$28.57	\$23.53	\$47.86	\$38.89	\$34.57
\$2.60	\$43.33	\$32.50	\$28.89	\$27.37	\$30.95	\$26.53	\$21.85	\$44.44	\$36.11	\$32.10
\$2.40	\$40.00	\$30.00	\$26.67	\$25.26	\$28.57	\$24.49	\$20.17	\$41.03	\$33.33	\$29.63
\$2.20	\$36.67	\$27.50	\$24.44	\$23.16	\$26.19	\$22.45	\$18.49	\$37.61	\$30.56	\$27.16
\$2.00	\$33.33	\$25.00	\$22.22	\$21.05	\$23.81	\$20.41	\$16.81	\$34.19	\$27.78	\$24.69
\$1.80	\$30.00	\$22.50	\$20.00	\$18.95	\$21.43	\$18.37	\$15.13	\$30.77	\$25.00	\$22.22
\$1.60	\$26.67	\$20.00	\$17.78	\$16.84	\$19.05	\$16.33	\$13.45	\$27.35	\$22.22	\$19.75
\$1.50	\$25.00	\$18.75	\$16.67	\$15.79	\$17.86	\$15.31	\$12.61	\$25.64	\$20.83	\$18.52
\$1.40	\$23.33	\$17.50	\$15.56	\$14.74	\$16.67	\$14.29	\$11.76	\$23.93	\$19.44	\$17.28
\$1.30	\$21.67	\$16.25	\$14.44	\$13.68	\$15.48	\$13.27	\$10.92	\$22.22	\$18.06	\$16.05
\$1.20	\$20.00	\$15.00	\$13.33	\$12.63	\$14.29	\$12.24	\$10.08	\$20.51	\$16.67	\$14.81
\$1.15	\$19.17	\$14.38	\$12.78	\$12.11	\$13.69	\$11.73	\$9.66	\$19.66	\$15.97	\$14.20
\$1.10	\$18.33	\$13.75	\$12.22	\$11.58	\$13.10	\$11.22	\$9.24	\$18.80	\$15.28	\$13.58
\$1.00	\$16.67	\$12.50	\$11.11	\$10.53	\$11.90	\$10.20	\$8.40	\$17.09	\$13.89	\$12.35

Example: Estimated Natural Gas Heat comparison using the chart above.

If you own an 80% natural gas furnace and your heating rate is about \$1.20 per therm then from the table above, you will spend about \$15.00 for one million BTUs.

If your home requires 60 million BTUs per winter, your winter heating costs will be about

$$60 \times \$15.00 = \$900 \text{ per winter}$$

If you changed to a 90% natural gas furnace, your cost per million BTUs is now \$13.33

In the same winter which required 60 million BTUs, your heating costs would be about

$$60 \times \$13.33 = \$800 \text{ per winter}$$

Due to the number of factors beyond Duke Energy's control, Duke Energy in no way represents or warrants that you will achieve the reduction in your home heating bills as set forth in these estimates. Duke Energy disclaims any obligation to update or revise the estimates and expressly disclaims any and all liability for any damages of any nature (including direct, indirect, incidental and consequential) arising in connection with the use of the estimates.