

RESIDENTIAL ENERGY COST ANALYSIS FOR GREATER MASSACHUSETTS REGION

Based on data from the U.S. Energy Information Administration (EIA), prices in the broader New England region follow patterns comparable to those in Massachusetts, offering an indication of expected household energy cost trends across the Region. When analyzing the cost of energy for Massachusetts households, state prices and use are only available through the spring of 2026. Modeling future energy prices is available only from the EIA for the New England Census Region.

In 2025, the average EIA-reported residential prices in Massachusetts were:

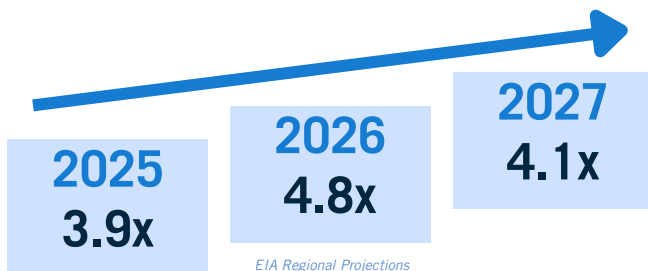
Natural Gas

\$25.06 per Mcf

Electricity

30.48 Cents per kWh

Electricity costs **3.7 times** as much as natural gas on an energy-equivalent basis in Massachusetts. The New England regional average is 4.1x in 2024 and is expected to remain high in 2027, based on AGA analysis of the EIA Short-Term Energy Outlook:



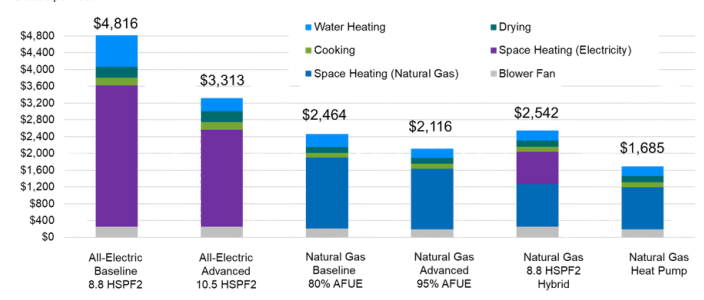
Seasonal patterns make natural gas even more attractive for space heating, especially when combined with other natural gas appliances. While the average electricity-to-gas price ratio in the state is around 4.1x in 2024 and 3.9x in 2025, it may drop to about 3.2x in summer and rise to about 3.9x in the winter months.

Massachusetts First-Year and Lifecycle Cost Analysis for New Single-Family Homes

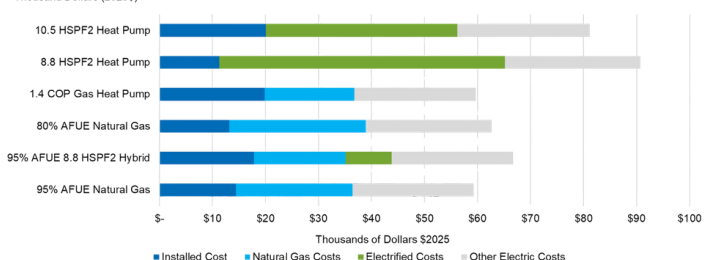
Using the methodology outlined in the AGA Building for Efficiency report, estimated heating costs were calculated for typical new single-family homes in the Greater Massachusetts area.¹ **A family living in a new single-family home with natural gas could save between \$1,198 and \$2,352 per year compared with an all-electric, air-source heat pump.** Over the life of the equipment, households could save \$10,000.

¹ <https://www.aga.org/research-policy/building-for-efficiency/>

Massachusetts New Single-Family Home Annual Energy Costs for Gas or Electric Uses
Dollars per Year



Massachusetts 15-Year New Single-Family Home Lifecycle Costs, All Appliances
Thousands of Dollars (2025\$)



Source: AGA Modeling

Impact of Winter Storm Fern on Energy Use & Energy Bills

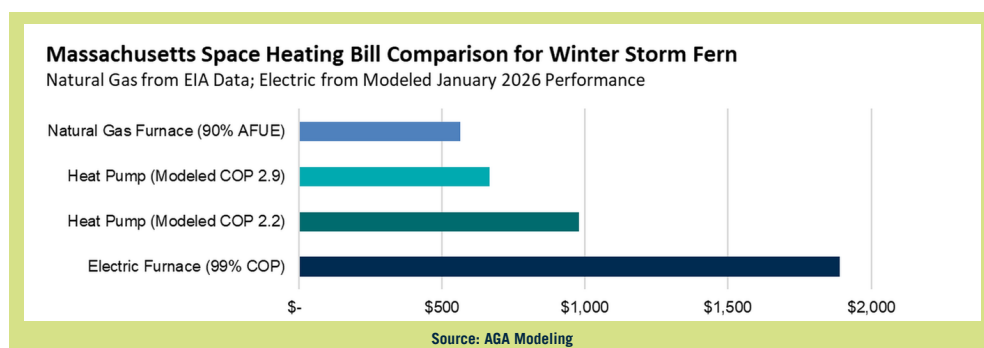
This winter, much of the eastern United States experienced colder-than-normal weather, with temperatures staying below freezing for extended periods. **In Massachusetts and the surrounding region, January and February averaged about 3°F below normal.** And the average temperature was below freezing for most of the winter. During Winter Storm Fern, from January 22 to January 30, temperatures were approximately 9°F below normal, with some of the coldest conditions occurring during the peak morning hours and single-digit temperatures persisting through much of the day. Cold weather like this can significantly affect home energy use and bills. **Natural gas heating systems commonly perform near their rated efficiency during cold weather.** By contrast, air-source heat pumps for space heating tend to lose efficiency and capacity during very cold periods, necessitating backup electric resistance heat.

Monthly Massachusetts Energy Price Comparison

Month	Natural Gas Price \$/Mcf	Electricity Price cents/kWh	Natural Gas Price \$/MMBtu	Electricity Price \$/MMBtu	Electricity to Gas Ratio
January-25	\$24.32	\$30.07	\$23.47	\$88.13	3.8x
February-25	\$25.96	\$30.42	\$25.03	\$89.15	3.6x
March-25	\$25.04	\$30.18	\$24.15	\$88.45	3.7x
April-25	\$23.76	\$30.63	\$22.91	\$89.77	3.9x
May-25	\$25.47	\$29.90	\$24.56	\$87.63	3.6x
June-25	\$26.87	\$30.33	\$25.91	\$88.89	3.4x
July-25	\$28.30	\$30.07	\$27.29	\$88.13	3.2x
August-25	\$28.46	\$30.61	\$27.44	\$89.71	3.3x
September-25	\$27.71	\$30.41	\$26.72	\$91.94	3.3x
October-25	\$22.55	\$31.37	\$21.75	\$91.50	4.2x
November-25	\$22.63	\$31.22	\$21.82	\$90.50	4.2x
December-25	\$25.73	\$30.88	\$24.81	\$90.50	3.6x
January-26	\$25.77	\$31.16	\$24.85	\$91.32	3.7x
February-26	\$26.05	\$30.46	\$25.12	\$89.27	3.6x
March-26	\$27.17	\$30.21	\$26.20	\$88.54	3.4x

Average Energy Costs During Winter Storm Fern

A heat pump for space heating might have an average January operating performance of 200% to 285%, but during the cold weather storm, it may have dropped to between 235% to 150% or as low as even 99% if only resistance was in use, which is likely for many households with older or minimum efficiency heat pumps.



Given that electricity costs 3.7 times more per unit of delivered energy than natural gas in January 2026, **households relying on electric heat may face significantly higher energy bills during severe winter weather than households using natural gas heating.**

Comparing the efficiency range of space heating appliances and average costs, electric bills for space heating could have been 1.2 to 3.4 times higher during the storm than the average natural gas heating bill. **The average natural gas space-heating cost in Massachusetts in January was \$566.²** Heat pumps might have increased average heating costs during that month to \$102 to \$414 compared to natural gas, and as much as \$1,325 with only backup electric heating.

² Average natural gas space heating bill for January 2026 based on average household consumption that month minus average summer consumption in 2025 to reflect only space heating use and not a mix of other appliances.