

Natural Gas Quarterly Update



April to June 2024

This document uses data from the Pennsylvania Department of Environmental Protection (DEP), the U.S. Energy Information Administration (EIA) and Natural Gas Intelligence to provide a quarterly update on natural gas production and prices. The table below shows recent trends in quarterly unconventional production volume, well counts and average spot prices for Pennsylvania.

	2023			2024	
	Q2	Q3	Q4	Q1	Q2
Production Volume	1,865	1,871	1,940	1,881	1,776
Growth Rate	0.7%	-0.5%	4.5%	1.9%	-4.8%
New Wells Spud	89	102	110	100	63
Annual Change	-45	-56	-26	-20	-26
Average PA Price	\$1.45	\$1.31	\$1.69	\$1.69	\$1.48
Growth Rate	-78.3%	-81.1%	-62.8%	-24.9%	1.9%

Note: Growth rates are year-over-year. Production is in billion cubic feet, horizontal wells only. Average PA price (in \$/MMBtu), is a weighted average spot price at two major PA hubs.
Source: Production volume and well counts are reported by DEP. Price data are from Natural Gas Intelligence.

Notable trends for 2024 Q2 include:

- **Production volume** totaled 1,776 billion cubic feet, a decrease of 4.8% from the prior year and the lowest quarterly production volume since 2020 Q3.
- There were 63 **new horizontal wells spud**, a decrease of 26 new wells (-29.2%) from the prior year. This level represents the lowest number of wells drilled since 2008 Q1. (Based on DEP data, unconventional (i.e., shale) drilling began in Pennsylvania in 2005 Q2.) Preliminary data for July and August show a decrease of 23.1% in new wells from the same period in 2023. Drillers have likely cut back in response to very low average prices and high inventory levels.
- The **average Pennsylvania spot hub price** was \$1.48, an increase of \$0.03 (1.9%) from the prior year. Regional and national prices have been constrained in recent quarters due to unusually high storage levels. According to the EIA Weekly Natural Gas Storage Report, U.S. natural gas storage at the end of 2024 Q2 was 8.8% higher than the prior year. Furthermore, national storage levels for 2024 Q2 were the highest for a second quarter since 2016. Storage levels have increased as national production outpaced demand, largely due to mild winters.

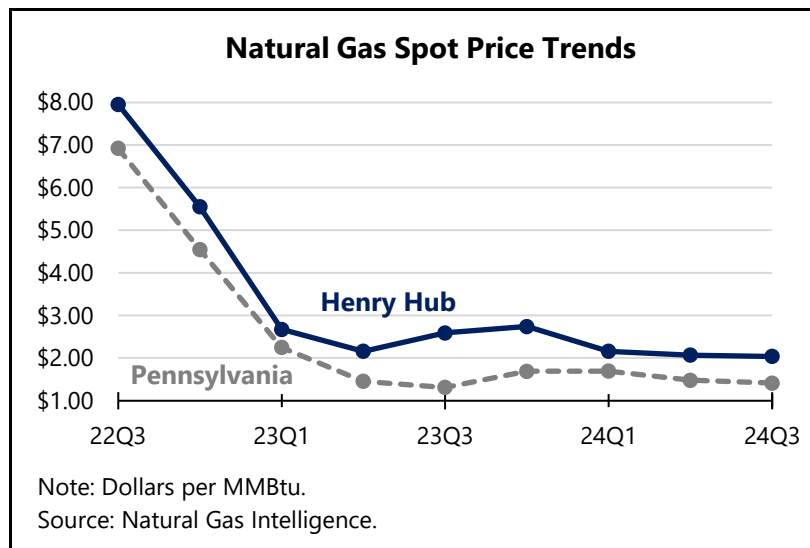
The table below compares year-over-year (YOY) growth in quarterly production volume in Pennsylvania to seven large production states and the U.S. The states are listed in descending order based on total production volume in 2024 Q2. The eight states shown account for 86% of nationwide natural gas production. For Pennsylvania, these data differ from the prior page because they include natural gas production from all sources and well types (e.g., conventional). For 2024 Q2, nationwide production declined from the prior year

(-0.3%) for the first time since 2021 Q1. This decline was largely driven by Pennsylvania (-5.1%) and Louisiana (-18.4%). Production growth for all states shown (except New Mexico) was either negative or a deceleration from the previous quarter. Low prices and high inventory have likely caused a nationwide slowdown in production in recent months.

State	2023			2024	
	Q2	Q3	Q4	Q1	Q2
Texas	6.6%	6.2%	7.2%	6.8%	4.1%
Pennsylvania	1.4	0.6	4.2	1.3	-5.1
Louisiana	7.9	3.0	-2.6	-7.8	-18.4
New Mexico	18.5	16.4	12.1	11.5	11.9
Alaska	0.8	-9.1	-1.7	1.4	-1.5
West Virginia	9.3	10.4	13.4	11.4	5.7
Oklahoma	1.4	-0.9	-1.6	-3.1	-0.8
Ohio	1.2	-0.2	-0.9	-5.0	-1.9
U.S.	4.5	2.7	4.1	3.1	-0.3

Source: U.S. Energy Information Administration.

The adjacent figure displays recent trends in natural gas spot prices for the Henry Hub and the average Pennsylvania hub price. For 2024 Q2, the Pennsylvania average was \$1.48 and the Henry Hub was \$2.07. Preliminary data for 2024 Q3 show that the Pennsylvania average hub price is \$1.41 and the Henry Hub is \$2.04. Since an uptick in January due to winter weather, both prices have declined to levels comparable to the CY 2020 average (the lowest annual average for both). The EIA projects that the Henry Hub will average \$2.89 for 2024 Q4, an increase of 5.5% from the prior year and a notable uptick from the first three quarters of 2023. The fourth quarter price increase is largely due to seasonal factors.



Staff Contact

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