



Natural Gas Production Report

October to December 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.

Natural Gas Summary: 2024 Q4

	2024				CY 2024
	Q1	Q2	Q3	Q4	Total
Production Volume	1,885	1,792	1,839	1,869	7,386
Growth Rate	2.2%	-3.9%	-1.7%	-3.7%	-1.8%
New Wells Spud	100	63	63	84	310
Annual Change	-20	-26	-39	-26	-111
Average PA Price	\$1.69	\$1.48	\$1.44	\$2.01	\$1.66
Growth Rate	-24.9%	1.9%	9.8%	19.1%	-1.1%

Note: Growth rates and annual change 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 Q4 include:

- **Production volume** totaled 1,869 billion cubic feet, a decrease of 3.7% from the prior year. Full-year production was down 1.8% compared to 2023. Total production for 2024 was the lowest annual amount since 2020.
- There were 84 **new horizontal wells spud**, a decrease of 26 new wells (-23.6%) from the prior year. There were 310 wells drilled in 2024, less than any year since 2008. According to DEP, unconventional (i.e., shale) drilling began in Pennsylvania in 2005 Q2.
- The **average Pennsylvania spot hub price** was \$2.01, an increase of \$0.32 (19.1%) from the prior year. The fourth quarter price was bolstered by December (\$2.70), as prices increased in response to winter weather demand. The average price for the full year was \$1.66, a decrease of \$0.02 (-1.1%) from 2023. Prior to the fourth quarter, average prices were historically low for nearly two years as supply outpaced demand. Preliminary data show that average prices have increased dramatically in 2025 so far. The average Pennsylvania spot price for January was \$3.81, an increase of 36.6% from 2024 and the highest monthly price since December 2022.

The table below shows county-level production volume and new wells drilled for calendar year (CY) 2024. Ranked in order of production, the table shows (1) the top-five producing counties, (2) the next five counties combined into one group and (3) remaining counties as a third group. The five counties shown accounted for 71.8% of production volume and 61.3% of new wells for CY 2024. The data show that the top four counties all recorded year-over-year declines in production volume. The only county in the top five to record a production gain was Lycoming (new to the top five). Four of the top five counties recorded significant declines in new wells spud. In total, only 14 of the 33 counties that produced natural gas had new wells spud in 2024.

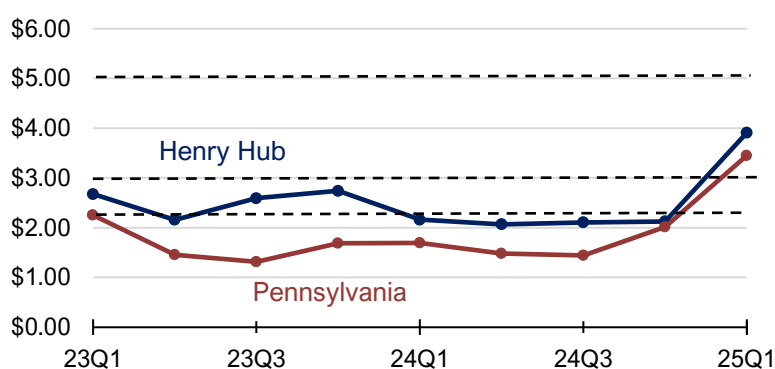
Top Five Production Counties 2024

Rank	County	Production			New Wells		
		Amount	Share	Growth	Number	Share	Growth
1	Susquehanna	1,404	19.0%	-11.3%	23	7.4%	-70.9%
2	Greene	1,149	15.6	-2.7	25	8.1	-16.7
3	Bradford	1,131	15.3	-0.2	55	17.7	-32.1
4	Washington	1,100	14.9	-4.6	59	19.0	-21.3
5	Lycoming	518	7.0	21.4	28	9.0	27.3
6-10	Next 5 Counties	1,419	19.2	6.1	65	21.0	-19.8
	All Other	665	9.0	-5.8	55	17.7	3.8
	Total	7,386	100.0	-1.8	310	100.0	-26.4

Note: Production amounts are in billion cubic feet, horizontal wells only. Growth rates are year-over-year. The Next 5 Counties groups includes Tioga, Westmoreland, Butler, Wyoming and Allegheny counties.

The adjacent figure displays recent trends in natural gas spot prices for the Henry Hub and the average Pennsylvania hub price. For 2024 Q4, the Pennsylvania average was \$2.01 and the Henry Hub was \$2.13.

Natural Gas Spot Price Trends



Note: Dollars per MMBtu.

Source: Natural Gas Intelligence. 2025 Q1 estimated by the IFO.

Both annual prices for 2024 were comparable to the CY 2020 average (the lowest annual average for both). The black dashed lines represent the price brackets on which the Pennsylvania Impact Fee is based. The price used for the Impact Fee schedule largely correlates with the monthly average Henry Hub price. The Henry Hub for 2024 averaged just below \$2.25, which is the cutoff for the lowest fee schedule. If the average monthly Henry Hub price had exceeded \$2.25 for the year, then that would increase estimated Impact Fee collections by roughly \$30 million.

Staff Contact

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