



The U.S. Department of Energy's Office of Fossil Energy and Carbon Management (FECM) supports research and development of technologies that can reduce the volume of natural gas (e.g., methane) flared or vented (released) into the atmosphere during crude oil and natural gas production, processing, transportation, and storage operations. Methane is a potent greenhouse gas (GHG) and minimizing its release across the oil and natural gas supply chain is critical to the realization of a net GHG benefit and reducing climate and environmental impacts of carbon-based fuels. This fact sheet was created by FECM to inform stakeholders on state-level production and regulatory activities, as they relate to natural gas flaring and venting. FECM's research portfolio includes efforts to reduce natural gas flaring through the application of improved technologies to capture and utilize small volumes of natural gas at remote locations, as well as technologies to reduce methane release during upstream production operations, as well as midstream natural gas processing and transportation. While flaring activities in the prolific unconventional shale plays have steadily increased between 2011-2019 due to higher oil production levels and natural gas pipeline takeaway capacity constraints, this trend took a sharp downturn since 2020 as a result of significant decline in demand for oil. Other factors include federal and state regulatory efforts to reduce methane emissions, companies taking voluntary actions and measures to minimize flaring of associated natural gas, and additional pipeline projects connecting sources of supply and consumption.

New York Producing Plays and Basins

Virtually all of the historical oil and natural gas production in New York has been in the western part of the state, from Paleozoic sedimentary rocks of the Appalachian Basin (Figure 1). As of 2017, the [New York State Department of Environmental Conservation](#) (DEC) reports that gas production is primarily from low-volume marginal wells in the Medina Formation, followed by the Trenton-Black River Formation, Herkimer Formation, and Queenston Formation. A recent - assessment of Trenton-Black River undiscovered resources estimates New York's share to be 1.5 trillion cubic feet (Tcf). The U.S. Geological Survey estimates that

unconventional gas reservoirs in New York such as the Marcellus and Utica-Point Pleasant potentially contain more than 5.4 Tcf of technically recoverable natural gas. However, development of the unconventional shale reservoirs require large-volume hydraulic fracturing treatments, which the state does not currently permit, making the commercial development of these plays infeasible. Many of New York's mature oil fields are close to depletion but still contain millions of barrels of unrecovered oil, and thus are targets for enhanced oil recovery.

New York has few proved crude oil reserves and produces only small amounts of crude oil from wells in the southwestern part of the state. According to the [U.S. Energy Information Administration](#)

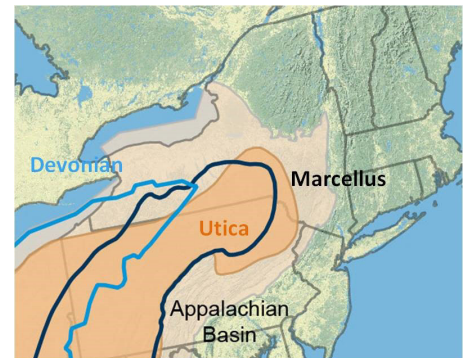


Figure 1: New York producing basin with major unconventional natural gas plays outlined Source: EIA

(EIA), natural gas has been produced in western New York for almost 200 years, but annual production has never exceeded the 2006 peak of 55.3 billion cubic feet.

New York Oil and Natural Gas Statistics (EIA)

	2015	2016	2017	2018	2019	2020
Crude Oil Production (Average Barrels/Day)*	783.5	614	533	610	760	651
Natural Gas Gross Withdrawals and Production (Average MMcf/Day)	47.5	37	31	29	30	26.5
Natural Gas Gross Withdrawals and Production (Vented and Flared) (MMcf/Day)	The state of New York does not maintain a database of aggregated natural gas venting and flaring volumes. *					
Natural Gas Gross Withdrawals and Production (Oil Wells) (Mcf/Day)	586	691	353	605	767	453
Natural Gas and Gas Producing Oil Wells (Thousands)	9.3	9.5	8.7	10	10	9

MMcf - million cubic feet
Mcf - thousand cubic feet

*Information provided by the New York State DEC

Ranking among 32 U.S. oil and natural gas producing states — Oil: 28 (2021) Natural Gas: 22 (2020)

The state holds less than 0.05 percent of the nation's total natural gas reserves.

New York Key Regulations Associated with Flaring and Venting

The Bureau of Oil & Gas Permitting and Management in the Division of Mineral Resources at [DEC](#) is responsible for statewide regulatory coordination of all regulated wells under Article 23 of the [Environmental Conservation Law](#). The Bureau oversees permitting, compliance, and enforcement of all regulated wells in New York. Each permit includes conditions designed to prevent the escape of gas from wells and ensure that operators mitigate the environmental impact of resource extraction to the greatest extent possible.

The rules and regulations for oil and gas operations are in [Parts 550-570](#) of Title 6 of the New York Codes, Rules and Regulations (NYCRR), DEC, Chapter V: Resource Management Services, Subchapter B: Mineral Resources. Operators must submit an Application for Approval to Flare [form](#) to DEC's Division of Mineral Resources. DEC will grant approval and issuance of an [Approval to Flare](#) if the applicant proposes: 1) flaring associated with any well completion, stimulation, clean-up, testing, plugging, or other DEC-identified operation; and 2) extension of a previously approved flaring period. DEC considers flaring during drilling operations to be part of the drilling process and does not require a separate Approval to Flare, except under special circumstances as determined by DEC.

New York codes only permit gas venting in situations related to well clean-up (with

a maximum of 48 hours) and well testing (with a maximum of 24 hours). DEC enforces these requirements, outlined in [6 NYCRR 556.2\(b\)](#). Operators may request extensions of the allowable time periods by submitting an application and demonstrating a sufficiently good cause.

New York State Points of Contact

Department of Environmental Conservation; Division of Mineral Resources; Bureau of Oil and Gas Permitting and Management

Contact the Bureau of Oil and Gas Permitting and Management for more information about oil and gas regulations in the state of New York.

Website: <https://www.dec.ny.gov/energy/205.html>

Email: dmn.oilgas@dec.ny.gov

Phone: 518-402-8056

Department of Environmental Conservation; Division of Air Resources

Contact the DEC Division of Air Resources for more information about air emission regulations and monitoring.

Website: <https://www.dec.ny.gov/chemical/281.html>

Email: DARWeb@dec.ny.gov

Phone: 518-402-8452

Visit energy.gov/fe/state-natural-gas-flaring-and-venting-regulations for a digital version of this fact sheet that includes hyperlinks to information sources.



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