



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.

Missouri Producing Plays and Basins

There are currently three potential areas for conventional oil and gas production in Missouri: the Forest City Basin in the northwest corner, the Lincoln Fold anticline in the northeast corner, and the Mississippi Embayment in the southeast corner of the state ([Figure 1](#)). According to the [U.S. Energy Information Administration](#) (EIA) Missouri produces small amounts of oil and natural gas annually. Commercial oil production continues from a limited number of wells, and while there is only one commercial gas well in the state, the Missouri Department of Natural Resources reports that there



Figure 1: Missouri oil and gas producing areas
Source: EIA

are several dozen private gas wells used to heat homes and small businesses. Oil in Missouri is typically produced from shallow depths, starting at around 150 feet, and it is often heavy, viscous crude.

While coalbed methane has not yet been produced economically in Missouri, given Missouri's extensive coal deposits, there may someday be development given the right economic conditions.

From 2018 - 2020, Missouri's oil production averaged approximately 6,750 barrels per month with production occurring in the northwest near the border with Kansas and Nebraska, as well as in the east near St. Louis. Missouri produced minor amounts of natural gas in the past, but, except for a few wells that supply natural gas for private use, production in the state has ceased. The state also has the [potential for coalbed methane production](#)

Missouri [Oil](#) and [Natural Gas](#) Statistics (EIA)

	2015	2016	2017	2018	2019	2020
Crude Oil Production (Average Barrels/Day)*	408	337	317	263	234	185
Natural Gas Gross Withdrawals and Production (Average Mcf/Day)*	8.7	3.3	2.3	3	2	1.8
Natural Gas Gross Withdrawals and Production (Vented and Flared) (Mcf/Day)	0	0	0	0	0	0
Natural Gas Gross Withdrawals and Production (Oil Wells) (Mcf/Day)	0	0	0	0	0	0
Natural Gas Producing Wells*	92	86	79	76	67	66

Mcf - thousand cubic feet

* Data from Missouri Department of Natural Resources

Ranking among 32 U.S. oil and natural gas producing states — [Oil](#): 29 (2021) [Natural Gas](#): 32 (2020)

due to coal deposits that are in northern and western Missouri, with approximately one-third of the state sitting on top of coal seams.

Missouri Key Regulations Associated with Flaring and Venting

The Missouri Department of Natural Resources (DNR) oversees the state's oil and gas production laws and regulations. The State Oil and Gas Council, which operates within the Missouri Geological Survey at the DNR, publishes rules and regulations that apply to oil and gas drilling and producing operations. [Chapter 259, Revised Statutes of Missouri](#) provides the council with specific authority to govern the oil and gas industry, which includes establishing standards for well drilling and operation, underground storage of hydrocarbons, and the production of oil and gas. The council also has the authority to establish fees with which it may administer the law.

The [Missouri Air Conservation Commission](#) of the DNR regulates emissions as described in the [Air Conservation Law](#) (Chapter 643, Revised Statutes of Missouri). The commission's duties include adopting, amending, and rescinding rules; making decisions on appeals from enforcement orders and permit conditions; and approving plans for meeting national standards in nonattainment areas according to the National Ambient Air Quality Standards. The DNR's Division of Environmental Quality monitors air quality through its Air Pollution Control Program.

Missouri does not have upstream-related flaring and venting-related regulations. However, [Chapter 259.060](#) of the Title XVI, Conservation, Resources and Development statute prohibits waste of oil and gas in the interest of conservation of natural resources.

Missouri State Points of Contact

Missouri Department of Natural Resources; Missouri Geological Survey/State Oil and Gas Council

Contact this office for more information about oil and gas production in Missouri.

Website: <https://dnr.mo.gov/commissions-boards-councils/state-oil-gas-council>

Email: geology@dnr.mo.gov

Phone: 573-368-2100

Missouri Department of Natural Resources; Air Conservation Commission/Air Pollution Control Program

Contact this office for more information about air emission restrictions in Missouri.

Website: <https://dnr.mo.gov/env/apcp/macc.htm>

Email: apcp.receptionist@dnr.mo.gov

Phone: 573-751-4817

Visit <https://www.energy.gov/fecm/findyourstate-natural-gas-flaring-and-venting-regulations-fact-sheets-state> for a digital version of this fact sheet that includes hyperlinks to information sources.



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Information current as of June 2022.