



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.

Arizona Producing Plays and Basins

While Arizona has a number of basins and geologic features, only a small portion of the Paradox Basin in the northeastern corner of the state has been oil and gas productive ([Figure 1](#)). There are about five legacy fields in that basin. In January 2017, the Arizona Oil and Gas Conservation Commission (AOGCC) reported a total of about 7,800 barrels of oil and 58 million cubic feet (MMcf) of gas was produced from 13 oil wells and 3 gas wells. The [Arizona Geological Survey](#) identified 11 potential shale oil and shale gas targets in Arizona, including the Mancos, Walcott, Aneth, and Bright Angel Shales in northern Arizona (2013). According to the

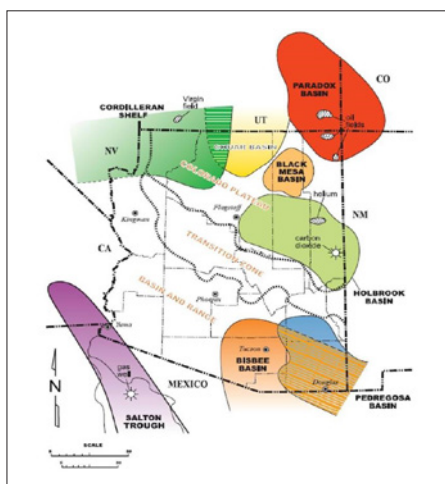


Figure 1: Arizona Producing Basins and Plays
Source: Arizona Geological Survey

U.S. Energy Information Administration (EIA), Arizona has no proved [oil reserves](#) nor [natural gas reserves](#). According to interviews with the AOGCC, all current oil and gas production originates from the Navajo Nation, in the northeastern region of the state.

Arizona Key Regulations Associated with Flaring and Venting

The U.S. Bureau of Land Management regulates Arizona's current oil and gas production, which is located on Navajo Nation territory. For any other wells, the [AOGCC](#) administers and enforces state laws related to conservation of oil

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

	2015	2016	2017	2018	2019	2020
Crude Oil Production (Average Barrels/Day)	101	22	36	27	19	14
Natural Gas Gross Withdrawals and Production (Average Mcf/Day)	260	129	153	115	180	180
Natural Gas Gross Withdrawals and Production (Vented and Flared) (Mcf/Day)	Arizona does not have records of any venting or flaring activity.					
Natural Gas Gross Withdrawals and Production (Oil Wells) (Mcf/Day)	0	0	0	0	0	0
Natural Gas and Gas Producing Oil Wells	7	3	3	N/A	N/A	N/A

Mcf - thousand cubic feet

Ranking among 32 U.S. oil and natural gas producing states — [Oil](#): 31 (2021) [Natural Gas](#): 30 (2020)

and natural gas. The AOGCC has the authority to issue permits for oil and gas wells; monitor and inspect facilities for compliance with agency rules; issue subpoenas; maintain data related to drilling and production; publish geologic studies; and provide information related to exploration and development of resources.

The oil, gas, and geothermal resources rules explain the basic requirements for drilling, completing, and producing oil and gas wells. These rules are part of the [Arizona Administrative Code in Title 12; Chapter 7, Natural Resources](#). According

to section R12-7-138, *Casinghead Gas*, operators shall meter all casinghead gas produced and sold or transported away from a lease, except amounts of flare gas, and then report it monthly in writing to the AOGCC. Operators should burn all casinghead gas that is authorized to be vented and then report the estimated volume monthly as required by R12-7-161, *Producer's Monthly Report*. In addition, [Arizona Statute, Title 27-503](#) prohibits the waste of oil or gas. The AOGCC Commission is responsible for determining whether waste exists.

Arizona State Points of Contact

Arizona Oil and Gas Conservation Commission

Contact the AOGCC for more information about the requirements for drilling, completing, and producing oil and gas wells.

Website: <http://azOGCC.az.gov/>

Email: OGCC@azdeq.gov

Phone: 602-771-4501

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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