



Nebraska Natural Gas Flaring and Venting Regulations

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.

Nebraska Producing Plays and Basins

According to analysis conducted by the U.S. Energy Information Administration (EIA), Nebraska has modest petroleum reserves equal to less than 0.1% of the nation's total and does not have any significant natural gas reserves. It also occurs in a single county in the Forest City Basin in the southeast corner of the state ([Figure 1](#)). The large majority of the many small fields produce oil from a number of Paleozoic reservoirs. The [Nebraska Oil and Gas Conservation Commission](#) reports that there are also a number of small gas fields in the panhandle. While the



Figure 1: Nebraska producing basins with major oil and gas plays outlined Source: EIA

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

	2014	2015	2016	2017	2018	2019	2020
Crude Oil Production (Average Thousand Barrels/Day)	8.0	8.0	6.0	6.0	6.0	5.0	5.0
Natural Gas Gross Withdrawals and Production (Average MMcf/Day)	1	1	1	1	1	1	1
Natural Gas Gross Withdrawals and Production (Vented and Flared) (Mcf/Day)	The state of Nebraska does not maintain data for venting and flaring.*						
Natural Gas Gross Withdrawals and Production (Oil Wells) (Mcf/Day)	172.6	213.7	148.0	131.5	109.6	87.7	54.6
Natural Gas and Gas Producing Oil Wells	160	191	197	185	2,146	1,588	1,550

MMcf – million cubic feet

Mcf - thousand cubic feet

* Data from Nebraska Oil and Gas Conservation Commission

Ranking among 32 U.S. oil and natural gas producing states — [Oil](#): 23 (2021) [Natural Gas](#): 28 (2020)

[Niobrara Shale](#) is a currently developing shale oil play in Wyoming and Colorado, wells drilled in the Nebraskan portion of the play have not been as productive.

Nebraska Key Regulations Associated with Flaring and Venting

The Nebraska Oil and Gas Conservation Commission ([NOGCC](#)) regulates oil and natural gas exploration and production with an emphasis on waste prevention and environmental protection. Chapter 57, [Section 57-904](#) defines the roles of the NOGCC.

The Revised Statutes of Nebraska, [Chapter 57, Section 902](#), prohibit the waste of oil and gas. Section 57-903 defines waste as, among other things, the escape, blowing, or releasing of gas, directly or indirectly, into the open air from wells producing gas only, or from wells producing oil, or both oil and gas. It excludes gas that is reasonably necessary in the drilling, completing, testing, and producing of wells and gas that is unavoidably produced with oil in instances where it is not economically feasible for the producer to save or use such gas.

[Title 267](#), NOGCC, Chapter 3 – Drilling, Development, Producing And Abandonment, [Section 021 Disposal of Gas](#) mandates that operators can flare and burn gas generated in connection with oil production only in instances where there is no market at the well or use on the lease for such gas. The operators of gasoline plants that extract liquid hydrocarbons from the gas shall burn the residue gas in flares where no market exists for the residue gas. The operators may also burn it when the gas is not returned to an oil pool or field for pressure maintenance or repressuring of the oil pool or field.

The [Nebraska Department of Environmental Quality](#) (NDEQ) complements the NOGCC's efforts by enforcing air quality and environmental regulations. Nebraska primarily bases its air regulations on federal policies developed by the U.S. Environmental Protection Agency to address Clean Air Act requirements.

Nebraska State Points of Contact

Nebraska Oil and Gas Conservation Commission

Contact the NOGCC for additional information on oil and gas production and regulations.

Website: <http://www.nogcc.ne.gov>

Email: NOGCC@nogcc.ne.gov

Phone: 308-254-6919

Nebraska Department of Environment and Energy: Air Quality Division

Contact the Air Quality Division at NDEE for information on air monitoring, inspections of oil and gas facilities, and the permitting process.

Website: <http://deq.ne.gov/NDEQProg.nsf/AirHome.xsp>

Email: ndee.moreinfo@nebraska.gov

Phone: 402-471-2186

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.



U.S. DEPARTMENT OF
ENERGY

Fossil Energy and
Carbon Management

For more information, visit:
[FECM website](#)

Information current as of June 2022.