



The U.S. Department of Energy's Office of Fossil Energy (FE) 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 exploration, production, processing, transportation, and storage operations. This fact sheet was created by FE to inform stakeholders on state-level production and regulatory activity regarding natural gas flaring and venting. FE's research portfolio includes efforts to reduce methane (and other hydrocarbon) 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 (primarily) methane release during midstream gas processing and transportation. Intermittent flaring that occurs as a result of routine well testing, production facility process shutdowns, or facility and pipeline infrastructure maintenance, are normal aspects of safe oil and natural gas production. Increases in domestic oil and natural gas production have resulted in significant infrastructure buildouts, however, natural gas pipeline capacity constraints have led to regional increases in the flaring of associated gas in some unconventional plays (e.g., Permian Basin in Texas and New Mexico and Bakken Shale in North Dakota) in order to enable oil production.

## 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. However, it does not have any significant natural gas reserves. Nebraska's oil and gas production occurs in the southwestern and panhandle counties where a portion of the Denver Basin extends into the state. 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](#)



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

reports that there are also a number of small gas fields in the panhandle. While the [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 [Oil](#) and [Natural Gas](#) Statistics (EIA)

	2013	2014	2015	2016	2017	2018
Crude Oil Production (Average Thousand Barrels/Day)	8.0	8.0	8.0	6.0	6.0	6.0
Natural Gas Gross Withdrawals and Production (Average MMcf/Day)	2.8	0.8	0.8	0.8	0.8	1.2 *
Natural Gas Gross Withdrawals and Production (Vented and Flared) (Mcf/Day)	217	0	1,209	217	0	N/A
Natural Gas Gross Withdrawals and Production (Oil Wells) (Mcf/Day)	13.7	172.6	213.7	148.0	131.5	N/A
Natural Gas and Gas Producing Oil Wells	300	160	191	197	185	N/A

MMcf - million cubic feet

Mcf - thousand cubic feet

\* Data from Nebraska Oil and Gas Conservation Commission

2017 ranking among 32 U.S. oil and natural gas producing states — [Oil](#): 22 [Natural Gas](#): 29

## 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](mailto:NOGCC@nogcc.ne.gov)

**Phone:** 308-254-6919

### Nebraska Department of Environmental Quality: Air Quality Division

Contact the Air Quality Division at NDEQ 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:** [NDEQ.AirQuality@Nebraska.gov](mailto:NDEQ.AirQuality@Nebraska.gov) or [ndeq.moreinfo@nebraska.gov](mailto:ndeq.moreinfo@nebraska.gov)

**Phone:** 402-471-2189

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