

## NORTH DAKOTA CLIMATE INITIATIVE – SECTOR STORY 3

### **The Fall of Flaring and the Rise of Production**

North Dakota has abundant natural resources- expansive prairies, growing industries, thriving outdoor recreation, billions of barrels of oil and trillions of cubic feet of natural gas. Of the nation's 100 largest oil fields, twenty are in North Dakota.

**For nearly two decades the oil and gas industry in North Dakota has been on a path that has benefited both the environment and the economic prosperity of the state.**

To tap into the economic and power potential of its reserves, North Dakota has expanded oil production, processing, pipeline capacity, and recovery technologies to help increase production. The financial impact of this growth has been significant. Between 2017 and 2022 taxes collected through oil extraction and production were more than 50% of all taxes collected by the state.

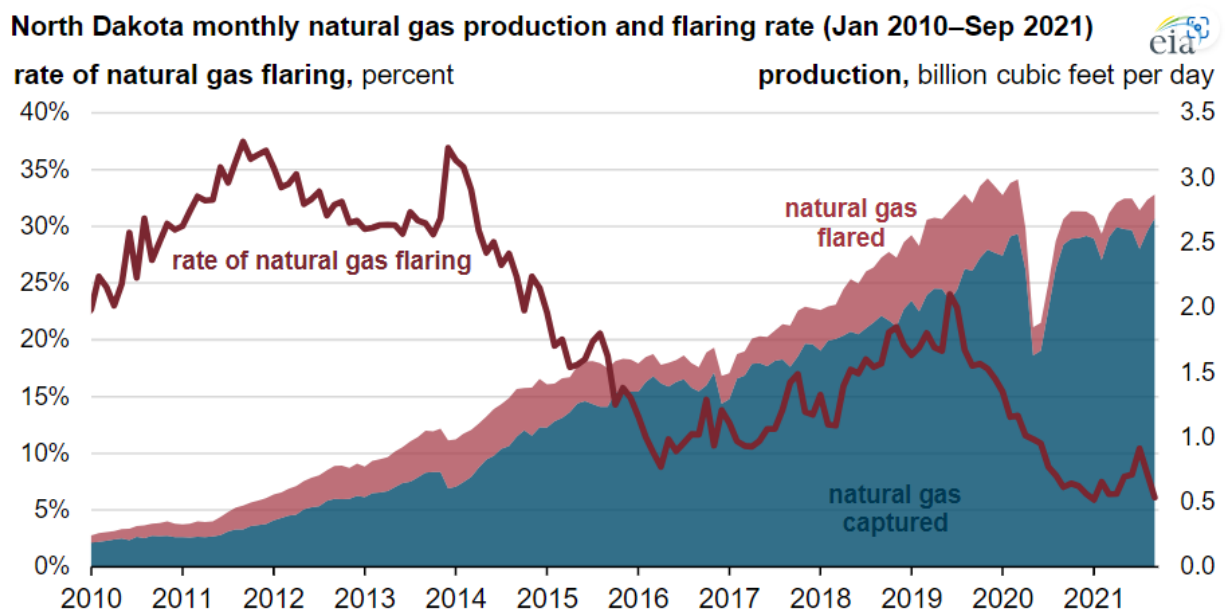
North Dakota has taken steps to preserve its air quality. Flaring is sometimes conducted as a better alternative to venting gas and a form of pollution control for leaks. Previously, flaring was also used to combust natural gas that could not be economically stored, processed or distributed due to pipeline takeaway capacity constraints. Reducing flaring and venting of natural gas into the atmosphere could result in two primary benefits:

1. **Improvements to our health and the environment.** Venting releases methane, a potent greenhouse gas, into the air. Flaring emits carbon dioxide (CO<sub>2</sub>) and incomplete combustion can result in the production of carbon particles, carbon monoxide and nitrous oxides. These emissions contribute to air pollution and may impact the health of nearby communities. North Dakota has effectively prohibited routine venting of natural gas and has significantly reduced flaring over the past decade. In 2011 North Dakota flared off 31.6% of gross withdrawals of its natural gas. By 2023, this percentage had decreased to 5.1%.
2. **Increases in revenue potential.** When pipeline takeaway capacity is limited, operators sometimes flare natural gas that cannot be economically stored. Natural gas is a valuable natural resource, and flaring is wasteful. Instead of

flaring and venting excess gas, North Dakota is capturing the economic value of this precious resource by bringing the vast majority of it to market.

The lack of processing and takeaway capacity during the early days of the Bakken oil field development was a major challenge in North Dakota. It resulted in flaring where the natural gas supply far surpassed the capacity to process and distribute it. In 2014, the North Dakota Pipeline Authority estimated that more than one-third of flared gas resulted from a lack of pipelines. As a result, North Dakota has the highest percentage of gross flare withdrawals of any state in the nation. But multiple state agencies worked hard to support increased processing and takeaway infrastructure and it's now a success story!

In 2014, the North Dakota Industrial Commission (NDIC) established targets to decrease the amount of flared gas and has continuously met these goals year after year. Additionally, the state has permitted the construction and operation of more natural gas gathering lines to transport gas from wells processing plants. By 2021, North Dakota was capturing 92.5% of produced natural gas, surpassing its goal of capturing 91% of natural gas produced by the state.



Source: Graph by the U.S. Energy Information Administration, based on data from North Dakota Pipeline Authority, Historical monthly gas production and sales statistics\*

Source: <https://www.eia.gov/todayinenergy/detail.php?id=50578>

Major progress was made in a relatively short time to process more natural gas and reduce flaring as the Bakken grew. North Dakota's oil and gas story is one of many

examples of how the state is simultaneously increasing economic growth and working toward a carbon-free future. As the North Dakota Department of Environmental Quality builds a first-of-its-kind sustainability plan, it's taking note of this success story, and others.

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