U.S. DEPARTMENT OF ENERGY | Fossil Energy and Carbon Management

Idaho 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.

Idaho Producing Plays and Basins

Oil and gas production in Idaho is relatively new and the current activity is underway at two locations. As reported by the Idaho Geological Survey, between 1900 and the 1980s, operators drilled 152 oil and gas wells across southern Idaho with no commercial results. New oil and gas leasing occurred in 2006, and there were reports of drilling success in 2010 in the Payette Basin (Payette and Gem Counties) along the southwestern border. Between 2010 and 2017, a total of 17 exploration wells were drilled in this location; 8 of these wells are currently producing natural gas and condensate from the Pliocene-Miocene Formations of the Idaho Group—all operated by a single producer. The names of the two new fields in this play are Willow and Hamilton. In southeastern Idaho's Bonneville County, operators are exploring Cretaceous-through Triassic-aged rocks. Target depth intervals are between 6,500 and 7,000 feet in the Preuss and Stump Formations. The subsurface in this area is complex because the field is within the Wyoming Thrust Belt in southeastern Idaho. These formations are tight and may require hydraulic fracturing. The Idaho Department of Lands indicates that Cassia and Twin Falls Counties have the potential for discoveries similar to those made in northern Nevada. So far, no wells have produced hydrocarbons in the southern or southeastern parts of the

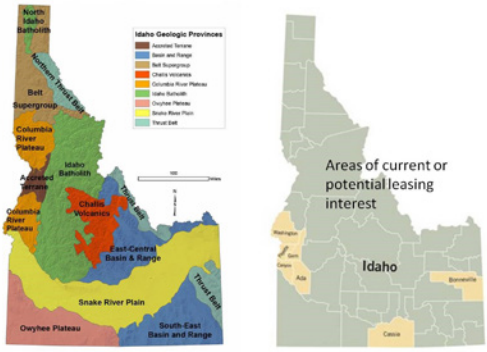

Figure 1: Idaho geologic provinces (left) and areas of current production or exploration interest (right). *Source: Idaho State University, Department of Geosciences*

Idaho Oil and Natural Gas Statistics (EIA)

	2015	2016	2017	2018	2019	2020
Crude Oil Production (Average Barrels/Day)	N/A	587	249	241	60	2.7
Natural Gas Gross Withdrawals and Production (Average MMcf/Day)	3.0	12.7	10.4	5	2.8	0.3
Natural Gas Gross Withdrawals and Production (Vented and Flared) (Mcf/Day) *	Volumes of natural gas vented or flared are not available since all sources are minor and are not subject to permitting requirements. *					
Natural Gas Gross Withdrawals and Production (Oil Wells) (MMcf/Day)	0	0	0	0	0	0
Natural Gas and Gas Producing Oil Wells	6	6	6	N/A	N/A	N/A

MMcf – million cubic feet

Mcf - thousand cubic feet

**Information provided by the State Oil and Gas Board, EIA - U.S. Energy Information Administration*

Ranking among 32 U.S. oil and natural gas producing states— Oil: 30 (2021) Natural Gas: (N/A) (2020)

state, but exploration is ongoing. The U.S. Geological Survey has estimated approximately 130 billion cubic feet (Bcf) of technically recoverable natural gas resources for the unconventional Lower Permian Phosphoria Shale and 626 Bcf of conventional gas reservoirs across the entire Wyoming Thrust Belt, including the relatively small portion that extends into Idaho.

Idaho Key Regulations Associated with Flaring and Venting

The Oil and Gas Division at the Idaho Department of Lands serves as the administrative arm of the Idaho Oil and Gas Conservation Commission, which regulates oil and gas exploration, drilling, and production. The Air Quality Division within the Idaho Department of Environmental Quality ensures compliance with federal and state air quality standards by monitoring air quality and collecting data.

Idaho Administrative Rule 20.07.02, *Rules Governing Conservation of Oil and Natural Gas in the State of Idaho*, Sections 413 and 430 describe flaring rules. According to Section 413, *Gas Utilization*, after completing the well and while testing it, the owner or operator may flare gas for no more than 14 days without paying royalties and severance taxes on the flared gas. Under no condition may the operator flare gas for more than 60 days after a well is completed or recompleted. Prior to flaring gas, owners or operators must notify the county in which the well is located, as well all owners of occupied structures located within one-quarter mile radius of the well. After the completion of well testing, no gas may escape into the air, and the operator must use all gas produced without waste. According to Section 430, *Gas Processing Facilities*, flaring at gas processing facilities must comply with IDAPA 58.01.01, *Rules for the Control of Air Pollution in Idaho*, and any permit issued by the Idaho Department of Environmental Quality (IDEQ).

Idaho State Points of Contact

Idaho Department of Lands; Oil and Gas Division; Idaho Oil and Gas Conservation Commission

Contact the Commission for details about oil and gas regulations and well information.

Website: https://ogcc.idaho.gov/

Email: jthum@idl.idaho.gov

Phone: 208-334-0200

Idaho Department of Environmental Quality; Air Quality Permitting

Contact the Air Quality Permitting office at the Idaho Department of Environmental Quality for additional information regarding air quality permits.

Website: www.deq.idaho.gov/permitting/air-quality-permitting/

Email: Darrin.Pampaian@deq.idaho.gov

Phone: 208 373-0587

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.