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Taxing Flaring and the Politics of State Methane Policy

Barry Rabe, Claire Kaliban, and Isabel Engelhart

Gerald R. Ford School of Public Policy, University of Michigan

This brief explores whether states with regulatory authority over oil and gas production include methane within their own established severance tax regimes. It acknowledges minimal published scholarship on this issue, aside from general discussion by a number of economists on whether or not accurate methane measurement for taxation is technically feasible. It draws upon a review of a half-century of state tax code and legislative changes, while placing particular emphasis on developments during the shale era. In short, methane is a constituent element in natural gas but is it included under or exempted from state natural gas severance taxes?

Background

Methane releases linked to oil and gas production generally fall under the jurisdiction of state agencies and legislative committees charged with oversight of fossil fuel generation and use. But methane assumes increased relevance in any plan to expand natural gas use alongside renewable sources, as the climate case for expanded natural gas use hinges on low methane release levels. Oil and gas production states have actively opposed expanded federal regulatory oversight by either the U.S. Environmental Protection Agency or Department of Interior, arguing that they have superior capacity to address methane challenges unique to their jurisdiction. States also have significant interest in methane governance, given its contribution to air quality concerns in a number of states. All major production states except Pennsylvania manage long-standing severance tax and royalty regimes on oil and gas production, which have been established to address the permanent loss of a non-renewable natural resource.

There has been growing global study and debate over the best methods to minimize methane releases without deterring production. International authorities such as the World Bank have long endorsed the idea of establishing some form of a price or tax on methane releases from oil and gas production. They routinely note early Norwegian adoption between 1970 and 1990 of a combination of regulatory and tax provisions. These were part of a durable strategy to minimize methane flaring and venting while sustaining high production levels. Considerable peer-reviewed scholarship demonstrates how these complementary strategies have proven effective in maintaining very low methane release rates over decades. These principles have begun to be applied internationally, including in some Canadian provinces. The World Bank confirms that a growing number of carbon tax proposals from multiple continents would establish tax imposition at the upstream point of production and specifically include methane releases.

Preliminary Findings

We completed extensive review of state severance tax code for the 15 states with the highest rates of oil and gas production, examining provisions relevant to methane. This was complemented with detailed review of any legislation adopted or legislative proposals that received some consideration through committee hearings in recent decades. We also contacted lead tax administrative authorities in each state to secure supplemental data and documents to provide an informed understanding of state practice.

We found that most state practice can be divided into two categories. First, many states formally exempt all methane releases from state severance tax inclusion, with statutory text that is strikingly similar across multiple states. Second, some states take legislative steps to include methane releases within taxes, after a specified period of exemption that ranges from several months to more than a year. However, these cases tend to defer tax application decisions to executive agency discretion. State agencies appear to routinely grant producer tax waiver requests, although we experienced considerable difficulty in securing reliable data on these practices over time.

There have been some exceptions to this pattern. For example, Alaska literally borrowed much of its approach to methane releases from Norway. It combined stringent regulatory limits on flaring with financial penalties double the current price of natural gas decades ago and contends that this has produced extremely low methane release rates. North Dakota passed legislation in the mid-1980s to shorten an open-ended period of methane exemption, although much of this was reversed several years later. The Texas Public University Fund has sustained royalty application to methane produced by wells leased on its 2.1 million acres while dramatically expanding in recent years its use of a range of technologies to accurately measure methane releases.

We find only two states, Wyoming and North Dakota, where legislation has been introduced in recent decades to expand the reach of severance taxes to cover methane. In both cases, bills were introduced during three separate legislative sessions during the past decades. These generally emerged with support from legislators of both parties, backed by natural resource protection organizations and think tanks, landowners concerned about possible royalty payment losses to methane exclusion, and groups such as education professionals concerned about possible losses of state revenue for core government functions.

However, industry opposition was highly visible in each case. Review of hearings did not reveal concerns about technical feasibility of methane taxation. Instead, industry leaders routinely noted that such taxation would create a financial burden that might compel them to move operations to a more tax-friendly state. In turn, industry threatened protracted litigation to try to block any tax as unconstitutional. It further contended that state governments had a responsibility to provide gathering infrastructure to make methane capture more financially attractive to industry before any tax application could be considered, even when they chose to drill in remote areas. Each legislative proposal was decisively rejected, including a bill introduced in North Dakota's 2019 biennium.

Conclusions and Next Steps

Preliminary findings suggest little likelihood that production states are inclined to use taxation to attempt to capture lost natural resource value of methane or incentivize less wasteful production. Questions remain concerning how states are developing their governing regimes to more accurately measure methane in the future and minimize its release. Separate work on a second paper suggests relatively limited engagement by state legislatures in this arena in the past decade, with states that have taken the most active steps thus far relying upon revised performance standards issued by state agencies. We are further examining governance of methane releases from landfills, where issues of taxes or fees on releases have begun to emerge, and more than 10 states now designate landfill “biogas” as a renewable energy source.

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