

REGULATORY ANALYSIS

In performing a regulatory analysis, each rulemaking entity must provide the information requested for the regulatory analysis to be considered a good faith effort. Each regulatory analysis shall include quantification of the data to the extent practicable and shall take account of both short-term and long-term consequences. The regulatory analysis must be submitted to the Air Quality Control Commission Office at least five (5) days before the administrative hearing on the proposed rule and posted on your agency's web site. For all questions, please attach all underlying data that supports the statements stated in this regulatory analysis.

DEPARTMENT: Colorado Department of Public Health and Environment

AGENCY: Air Pollution Control Division

CCR: 5 CCR 1001-9; 5 CCR 1001-30; 5 CCR 1001-31

DATE: December 13, 2024

RULE TITLE OR SUBJECT:

Midstream Segment Emission Reduction Program proposal - Regulations Number 7, Number 26, and Number 27

The Division is proposing revisions to Regulation Numbers 7, 26, and 27 to achieve the necessary statewide greenhouse gas (GHG) emission reductions to implement Colorado's GHG Pollution Reduction Roadmap (GHG Roadmap)¹ and House Bill 21-1266. This rulemaking targets the GHG emissions from fuel combustion equipment in the midstream oil and gas segment, which is categorized as "industrial sector" emissions in the GHG Roadmap. The Air Quality Control Commission (Commission) is required to adopt regulations to meet specified percentages of GHG reductions over a baseline. This proposal is designed to ensure that the Commission has adopted regulations that - in conjunction with "other laws and rules, as well as voluntary actions taken by local communities and the private sector"² - achieve the State's GHG reduction targets and environmental justice objectives.

In this same rulemaking, the Division is proposing other revisions to Regulation Numbers 7, 25, and 26. Those revisions are not related to the rulemaking covering midstream fuel combustion equipment (MFCE) in Regulation Numbers 7, 26, and 27, and are excluded from this Regulatory Analysis.³

Per the provisions of 24-1-103(4.5)(a), Colorado Revised Statutes, the regulatory analysis must include the following:

- I. A description of the classes of persons who will be affected by the proposed rule, including classes that will bear the costs of the proposed rule and classes that will benefit from the proposed rule;

The proposal affects the oil and gas industry and supporting businesses in Colorado. Companies that will bear the costs of this rule change include oil and gas companies that transport or process oil or natural gas in Colorado, i.e., midstream segment operators.

Local governments that receive revenue from oil and gas operations may also be impacted by the proposed rules, though there is no indication or evidence that this impact is likely to occur.

The proposed revisions will affect companies that manufacture, distribute, or install MFCE or electric equipment used to replace MFCE. MFCE are engines, turbines, heaters, and reboilers in the oil and gas midstream segment. The proposed revisions may benefit electrical generation utilities via increased demand for electricity.

The proposal broadly benefits all persons in Colorado, especially those who live and work in the front range prioritization area (FRPA) and disproportionately impacted (DI) communities. Residents of Colorado will benefit from the proposed rule revisions through reduced GHG emissions and reduced impact of climate-

¹ Governor Polis, Jared, [Colorado Greenhouse Gas Pollution Reduction Roadmap 2.0: Policy Priorities through 2026](#) ("GHG Roadmap") (February 2024).

² Section 25-7-105(1)(e)(II), C.R.S.

³ The Rule's proposed amendments to Regulation Number 25 and part of Number 26 are not addressed in this Regulatory Analysis to the extent that they involve only ozone SIP amendments. A Regulatory Analysis was requested for only the Midstream Segment Reduction Program proposal. Colorado Oil and Gas Association's (COGA) Regulatory Analysis request provided, "COGA does not seek a Regulatory Analysis for provisions of Regulation Number 7, 25, 26, or 27 that are unrelated to GHG emission reductions associated with MFCE. In other words, COGA only requests the Regulatory Analysis in connection with the midstream fuel combustion component of this rulemaking." COGA, Regulatory Analysis Request, November 26, 2024.

influenced events, through reduced volatile organic compounds (VOCs) and other co-pollutant emissions, and improved ozone levels and health outcomes.

II. To the extent practicable, a description of the probable quantitative and qualitative impact of the proposed rule, economic or otherwise, upon affected classes of persons;

The Division's assessments identify the cumulative costs for the affected industry, the estimated air pollution reduction, and the projected cost per unit of air pollution reduced, where such information was reasonably available to the Division. The Division determined that, based on the available data, there will be no direct costs on the general public for any of the proposed requirements. The Division determined that the proposed revisions could be implemented by the Division using existing and anticipated resources. A complete description of the probable quantitative and qualitative impact of the proposed rule, economic or otherwise, upon affected classes of persons can be found in the Division's Cost Benefit Analysis⁴ and Final Economic Impact Analysis (EIA)⁵, incorporated by reference herein.

Investments made by midstream owners or operators will have direct, indirect, and induced impacts on the economy. As operators install new equipment or upgrade existing equipment to reduce emissions, that investment creates jobs for individuals installing and operating those equipment as well as for the businesses supplying the equipment and electricity that is used. The increased demands for these businesses represent new economic opportunities and support jobs. The annual output impact on other industries is estimated to be worth \$23.9 million and \$59.3 million per year for the Flat and Growth scenarios, respectively. The spending by midstream companies is also projected to support up to 156 and 387 jobs for the Flat and Growth scenarios, respectively. Given that the multipliers used in this analysis are Type I multipliers⁶ and that the induced effects have not been assessed, these indirect impacts on related businesses can be considered to be conservative estimates.

In addition, beginning in 2030 and each year thereafter, the Division estimates that the midstream segment will have reduced at least 1,031,363 metric tons (mt) of carbon dioxide equivalent (CO₂e) per year from the 2015 level. This includes at least 638,968 mt CO₂e reductions between 2021 and 2030 via company caps. Using the social cost of carbon (SCC), the cumulative avoided cost of climate change resulting from these emissions reductions is estimated to be worth \$1.37 billion through 2050.

By reducing co-pollutants such as nitrogen oxides (NO_x), VOCs, carbon monoxide (CO), and hazardous air pollutants (HAPs), the rule will reduce the incidences of adverse health effects resulting from these pollutants. This increases the economic competitiveness of the State by reducing the health care burden in the State and by contributing to the overall health and wellbeing of the State's workforce.

In addition to reducing mortality, nonfatal heart attacks, and asthma onset, the rule is also expected to prevent 945 and 1,239 work loss days for the Flat and Growth scenarios, respectively. This will further contribute to increased productivity. The health benefits alone, without considering these broader effects, are valued at \$405.8 million and \$527.5 million for the Flat and Growth scenarios, respectively. Given that these estimates do not include the health benefits resulting from reductions in the emissions of HAPs that are also expected to occur, the results can be considered as conservative values.

Analysis⁷ of the distribution of the health benefits across the State's counties shows that the 34% of the health savings accrue in the DI communities. Specifically, it shows that 34% of the health benefits accrue to the counties that have an EnviroScreen score that is equal to or higher than the 80th percentile, which is used to define DI communities experiencing cumulative impacts. This result shows that DI communities will get more than a proportionate share of the health benefits and further demonstrates that the rule advances environmental justice goals of the State. The Division's statements are not intended to imply the health benefits from reduced GHG pollutants. Instead, the Division refers to the concomitant reductions of co-pollutants such as NO_x, CO, and HAPs when GHG emissions are abated from fuel combustion equipment. Those reductions in combustion byproducts have well-established health benefits, both locally and regionally. Therefore, completing GHG reductions will also provide health benefits.

⁴ See Cost Benefit Analysis at <https://drive.google.com/drive/u/0/folders/1VS6qkqol8WVOVatmsil5xwTB57-qNruS>.

⁵ See final Economic Impact Analysis at https://drive.google.com/drive/u/0/folders/1SjNuekb2SM924IJ_aDrvk6ALxh1rN6q.

⁶ See BEA RIMS II at

https://apps.bea.gov/regional/rims/rimsii/?_gl=1*10tfvtp*_ga*MTA0MzE3Mzk0Ny4xNzE3NTM0Njcw*_ga_J4698JNNFT*MTczNDA2MTExNS4xMy4xLjE3MzQwNjEyMzQuNi4wLjA.

⁷ The Gini coefficient, ranging from 0 to 1, measures the distribution of income or other benefits across the affected population, higher values showing that a small section of the affected population gets more than a proportionate share of the income or benefit under consideration. The Gini coefficient of the health benefits for this rule is 0.34. Thus, as envisioned, more than proportionate share of the health benefits from this rule accrue to the DI community.

III. The probable costs to the agency and to any other agency of the implementation and enforcement of the proposed rule and any anticipated effect on state revenues;

The Division references the discussion of this issue found in the Cost Benefit Analysis. The Division anticipates impacts to the Division's workload as part of implementation of its proposal. The Division believes that this workload impact will be handled by current and anticipated staff.

The Division does not anticipate material impacts upon State revenues. Division revenues from oil and gas development are largely derived from permitting fees and emissions fees. Neither the Division nor any party have presented evidence that the Division's proposal would directly impact permitting fees. The Division does expect that its proposal will result in reduced emissions, which may impact emission fees collected; however, the Division has determined that the benefits of reduced emissions outweigh any impact to the emission fees collected, and further determined that it can implement this proposal even with the prospect of reduced emission fees. The Division does not believe its proposal will result in costs to other agencies.

IV. A comparison of the probable costs and benefits of the proposed rule to the probable costs and benefits of inaction;

The Division references the discussion of this issue found in the Cost Benefit Analysis. Inaction to the proposed rule has several disadvantages. First, inaction could place the Colorado Department of Public Health and Environment in violation of its statutory duties to adopt and implement regulations to achieve the State's GHG targets, which would be detrimental to the State's efforts to mitigate climate change. Further, inaction will lead to increased methane/ethane emissions and could exacerbate the impact of climate related events. Finally, inaction would be detrimental to public health and the environment. Inaction could worsen the State's ozone problem, which would have significant and negative economic impacts on those areas.

The benefits of inaction include cost savings for owners and operators of midstream segment operations. The costs of inaction outweigh the costs of the Division's proposed rule.

V. A determination of whether there are less costly methods or less intrusive methods for achieving the purpose of the proposed rule; and

The primary purposes of this proposal are threefold:

- 1) Reduce GHG emissions to achieve the State's GHG reduction targets;
- 2) Pursue environmental justice and reduce GHG and co-pollutants in DI communities; and
- 3) Reduce ozone forming precursor emissions (a co-benefit of GHG reduction but, nonetheless, a standalone priority of the State).

As set forth in more detail in the materials available on the Division's midstream stakeholder process webpage,⁸ and submitted to the Commission as part of this rulemaking process, the Division evaluated other methods for achieving the purpose(s) of the proposed rules. The Division also evaluated alternative approaches for specific components submitted by Parties, including industry and environmental organizations, of its proposal. Some of those alternatives are reflected in the changes made to the Division's proposal between the Request Proposal and the current proposal (Errata Proposal), as detailed in the Division's Prehearing Statement⁹, Rebuttal Statement, Cost Benefit Analysis, and Errata. For example, Parties to this rulemaking raised concerns about:

- The initially proposed emissions cap structure, specifically the inclusion of a DI cap;
- The additional 1.5% overall emissions reductions target to accommodate impacts to smaller companies and/or new entrants;
- The lack of recognition of situations outside the control of a midstream company that could impact the ability of the midstream company to achieve and maintain their company cap; and
- The linkage of midstream and other industrial facilities as related to potential GHG credit trading.

Where stakeholders made a compelling argument that changes were needed to achieve the State's priorities, while ensuring that the program remains cost-effective, the Division adjusted its proposal accordingly, as discussed in the Division's Prehearing Statement, Rebuttal Statement, and Errata. The Division determined that its Errata Proposal achieves the purpose(s) described above.

⁸ See Greenhouse gas reduction planning for oil and gas midstream fuel combustion equipment webpage at <https://cdphe.colorado.gov/midstreamGHGplanning>.

⁹ See Division's Prehearing Statement at https://drive.google.com/drive/u/0/folders/1SjNueqkb2SM924IJ_aDrvK6ALxh1rN6q.

VI. A description of any alternative methods for achieving the purpose of the proposed rule that were seriously considered by the agency and the reasons why they were rejected in favor of the proposed rule.

The Division references the discussion of this issue found in the Cost Benefit Analysis. A thorough evaluation of alternatives was carried out during the three-year planning process for the proposed rule. No party or member of the public has suggested an approach or made an alternate proposal that differs drastically from the structure of the Division's proposed rule. Possible alternatives to the proposed rule could be: (1) a prescriptive approach of segment electrification, where the rule specifies the units of emitting equipment that must be electrified; (2) not including a GHG credit trading mechanism; or (3) establishing company caps based on an equal percent reduction amount for each midstream company. Concerning (1), a prescriptive approach to electrification would not create objectively fair and equitable reduction requirements across companies, would not fairly balance cost burdens across companies and facilities, could put grid reliability at risk, and would inhibit opportunities for other abatement strategies. Concerning (2), not including GHG credit trading would potentially force certain companies to execute extremely expensive options to reduce emissions onsite or shut down operations, could inhibit growth from existing companies, could limit new entrants, and would remove incentives for over-reductions or early reductions. Concerning (3), establishing an equal percent reduction caps would not reflect the opportunities for reductions by the largest three companies and would assign a greater reduction burden to smaller companies where significant reduction projects may not be feasible.