



**ATCO Gas and Pipelines Ltd.**

**2024 Unaccounted-For Gas Rider D and Rider P**

**September 9, 2024**

**Alberta Utilities Commission**

Decision 29250-D01-2024

ATCO Gas and Pipelines Ltd.

2024 Unaccounted-For Gas Rider D and Rider P

Proceeding 29250

September 9, 2024

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Eau Claire Tower

1400, 600 Third Avenue S.W.

Calgary, Alberta T2P 0G5

Telephone: 310-4AUC (310-4282 in Alberta)

1-833-511-4AUC (1-833-511-4282 outside Alberta)

Email: [info@auc.ab.ca](mailto:info@auc.ab.ca)

Website: [www.auc.ab.ca](http://www.auc.ab.ca)

The Commission may, no later than 60 days from the date of this decision and without notice, correct typographical, spelling and calculation errors and other similar types of errors and post the corrected decision on its website.

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## **1 Decision summary**

1. For the reasons set out in this decision, the Alberta Utilities Commission approves ATCO Gas's, a division of ATCO Gas and Pipelines Ltd., unaccounted-for gas (UFG) Rider D of 1.486 per cent and Rider P of 1.463 per cent, effective November 1, 2024.

## **2 Introduction and background**

2. In the process of delivering natural gas to customers through the distribution system, some gas goes unaccounted for, and a variance results between the amount of natural gas that goes into ATCO Gas's distribution system (from gas producers or gas transmission pipelines) and the deliveries actually received by customers (as measured at customers' meters). This difference is referred to as UFG.

3. There are a number of reasons why gas may be lost throughout the distribution system: these can be broadly categorized into (i) physical losses (such as pipeline leaks or pipeline damages caused by a third party); and (ii) measurement and accounting errors.<sup>1</sup> Although it is not possible to completely eliminate UFG, a utility should make efforts to keep it at reasonable levels to reduce costs to customers, ensure the safety of its distribution system and protect the environment.

4. In accordance with the currently approved regulatory framework, the cost of UFG is ultimately passed on to customers through retailers; gas producers using the distribution system to deliver their product also pay for their share of UFG. In ATCO Gas's case, it is done by means of Rider D and Rider P.

5. Rider D recovers UFG in-kind from all retailers and default supply providers that use the ATCO Gas distribution system. For example, if a Rider D of 1.486 per cent is approved, retailers and default supply providers must buy an extra 1.486 per cent of natural gas above what is delivered to their customers to offset for UFG to zero balance the deliveries and receipts on the system.<sup>2</sup>

6. Rider P recovers UFG associated with producer accounts, to ensure the quantity of gas ATCO Gas delivers on behalf of gas producers is kept in balance with the quantity of gas ATCO Gas receives from the producers. Approved in Decision 26283-D01-2021,<sup>3</sup> Rider P ensures that gas producers account for their share of UFG, in-kind. For example, if a Rider P of 1.463 per

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<sup>1</sup> UFG is commonly referred to as "gas losses;" however, there are many other drivers of UFG. For example, metering and billing errors may result in a positive amount of UFG (i.e., gas "gains" rather than "losses").

<sup>2</sup> Exhibit 29250-X0003, Attachment 2.

<sup>3</sup> Decision 26283-D01-2021: ATCO Gas and Pipelines Ltd., 2020 General Rate Application – Phase II Compliance Filing, Proceeding 26283, March 19, 2021.

cent is approved, gas producers will have to inject 1.463 per cent more gas in ATCO Gas's distribution system, to ensure that the contracted amount is delivered to a point of delivery.

7. Both riders are similarly designed. In previous years, Rider D was calculated annually using the most recent three-year average of ATCO Gas's annual UFG percentages. The UFG percentage is derived by dividing UFG (system receipts minus deliveries) by system deliveries. Rider P was similarly calculated using the most recent three-year average of annual UFG percentages but used system receipts as the denominator to calculate the annual UFG recovery requirement.<sup>4</sup> In Decision 28406-D01-2023,<sup>5</sup> the Commission directed ATCO Gas to use the most recent five-year average in place of the three-year average. The Commission has confirmed that ATCO Gas has complied with this direction regarding the calculation of Rider D and Rider P.

8. On August 20, 2024, ATCO Gas filed an application with the Commission requesting approval of its 2024-2025 UFG Rider D and Rider P, effective November 1, 2024. ATCO Gas calculated Rider D to increase from the currently approved value of 1.346 per cent to 1.486 per cent, and Rider P to increase from 1.328 per cent to 1.463 per cent.

9. In past UFG decisions,<sup>6</sup> the Commission directed ATCO Gas to continue to file Rider D and Rider P applications jointly. The Commission also directed ATCO Gas to calculate Rider D and Rider P using five-year averages, to provide reasons for UFG increases or decreases, information on practices that ATCO Gas has employed to reduce UFG, to provide details with respect to all measurement adjustments, to provide the net results of the adjustments to UFG, and to provide the Commission with an update on ATCO Gas's progress regarding the implementation of a solution to the recent upward trend in UFG percentages.

### 3 Analysis of issues

#### 3.1 UFG calculations and Rider D and Rider P amounts

10. In the application, ATCO Gas did not propose any changes to the approved methodology for calculating Rider D or Rider P. The riders are calculated as an arithmetic average of the last five years of UFG percentages. Table 1 shows the calculation of the riders.

**Table 1. Determination of UFG Rider D and Rider P amounts for 2024**

UFG percentages for the year ended December 31	Annual UFG percentage loss	
	Rider D	Rider P
2019	1.266	1.250
2020	1.036	1.025
2021	1.429	1.408
2022	1.779	1.748
2023	1.918	1.882

<sup>4</sup> Unlike for other services on the distribution system, where measurement is undertaken at the point of delivery, measurement for producer transportation service is undertaken at the point of receipt. Due to this, UFG for producer accounts must be calculated on measured receipt quantities and requires a separate rider that is calculated as a percentage of receipts.

<sup>5</sup> Decision 28406-D01-2023: ATCO Gas and Pipelines Ltd., 2023 Unaccounted-For Gas Rider D and Rider P, Proceeding 28406, October 17, 2023.

<sup>6</sup> Most recently in Decision 28406-D01-2023.

UFG percentages for the year ended December 31	Annual UFG percentage loss	
	Rider D	Rider P
Five-year arithmetic average (2019-2023)	1.486	1.463

Source: Exhibit 29250-X0001, application.

11. The Commission compiled Table 2 below showing the last five years of approved Rider D values. As Rider P was only approved in 2021, there are no Rider P amounts listed in Table 2 for 2019-2020. In the table, the riders in years prior to 2023 are calculated using a three-year average of annual UFG losses; the 2023 and 2024 values are calculated using a five-year average of UFG losses.

**Table 2. Historical Commission-approved UFG Rider D and Rider P<sup>7</sup>**

Year	Rider D (%)	Rider P (%)
2019	0.864	N/A
2020	1.102	N/A
2021	1.176	1.162
2022	1.271	1.270
2023	1.346	1.328
<b>2024 (applied for)</b>	<b>1.486</b>	<b>1.463</b>

12. The Commission notes that ATCO Gas’s reported UFG percentages continue to trend upwards. The Commission explored this issue with ATCO Gas in last year’s Proceeding 28406, which concerned ATCO Gas’s 2023 UFG Rider D and Rider P application. As summarized in Decision 28406-D01-2023, ATCO Gas explained that the increase in UFG percentages in recent years can largely be attributable to the implementation of a new Geographical Information System and how it assigns heat areas to customers.<sup>8</sup> ATCO Gas indicated it has initiated a project to determine a solution to resolve this issue. The Commission accepted this explanation and directed ATCO Gas to provide an update on this solution in the next Rider D and Rider P application.

13. In response to this direction, in the present application ATCO Gas notified the Commission that in late April 2024 it had implemented a solution to address the challenges posed by mixed heat areas. Specifically, ATCO Gas “implemented closed virtual valves to enhance heat area accuracy by creating discrete heat areas and thereby reducing the size of the mixed heat areas.”<sup>9</sup> ATCO Gas further indicated that it is in the process of collecting the data necessary to fully assess the success the implemented solution and will provide a further update in the next Rider D and Rider P application.

<sup>7</sup> Compiled using the approved Rider D and Rider P from Decision 28406-D01-2023; Decision 27583-D01-2022: ATCO Gas and Pipelines Ltd., 2022 Unaccounted-For Gas Rider D and Rider P, Proceeding 27583, September 19, 2022; Decision 26776-D01-2021: ATCO Gas and Pipelines Ltd., 2021 Unaccounted-For Gas Rider D and Rider P, Proceeding 26776, September 22, 2021; Decision 25798-D01-2020: ATCO Gas and Pipelines Ltd., 2020 Unaccounted-for Gas Rider D, Proceeding 25798, October 23, 2020; Decision 24815-D01-2019: ATCO Gas and Pipelines Ltd., 2019 Unaccounted-For Gas Rider D, Proceeding 24815, October 24, 2019.

<sup>8</sup> Decision 28406-D01-2023, paragraphs 15-21.

<sup>9</sup> Exhibit 29250-X0001, application, paragraph 13; footnote omitted.

14. Because the applied-for Rider D and Rider P percentages are calculated based on data from January 2019 to December 2023, the Commission acknowledges that the solution implemented by ATCO Gas in April 2024 would not yet have any effect on the 2024 UFG Rider D and Rider P calculations. The Commission directs ATCO Gas to provide an update on the efficacy of its virtual valves solution at the time of the next Rider D and Rider P application.

15. In prior decisions, the Commission recognized that UFG is an expected element of operating a natural gas distribution system. The Commission also recognized that, due to the many factors that impact UFG, the UFG amount will fluctuate over time. ATCO Gas provided a list of factors affecting its UFG in Table 3 of the next section.

16. The proposed Rider D and Rider P are higher than the recent historical range of UFG percentages. Apart from the mixed heat area issue discussed above, the Commission finds that variances in UFG levels, such as those observed in the tables above, can be expected from normal operation of the gas distribution system. For the purposes of this decision, the Commission is satisfied that the reported variances in ATCO Gas's UFG are not a cause of concern at this time.

17. For these reasons, the Commission approves ATCO Gas's rate Rider D of 1.486 per cent and Rider P of 1.463 per cent, both effective November 1, 2024.

### 3.2 Compliance with previous Commission directions

18. In accordance with the Commission direction in Decision 28406-D01-2023, ATCO Gas identified and ranked the primary sources that could contribute to an increase or a decrease in UFG. They are as follows:

**Table 3. Sources of UFG<sup>10</sup>**

Ranking	Source	Issue/Concern
1	Equipment failure	Event in which any part of the equipment does not perform according to its operational specifications. E.g. Meters, Gas Sampling.
2	Heat area sampling	Heat area is determined by sampling the heat value of a gas source. Mixed heat area billing leads to Unaccounted-for Gas (UFG) in pipeline systems that blend different gas sources. To adhere to Measurement Canada regulations, gas is sampled from each pipeline, and all customers on the system are billed at the lower heat value causing UFG due to the disparity between billing and measurement values
3	Construction	Mixing of heat areas during construction. Purging and filling pipelines.
4	Pipeline leaks	Gas lost to atmosphere.
5	Unauthorized use	Gas lost to theft.
6	Seasonal operating plans	The timing of when the seasonal operating plan can be implemented is dependent on the weather. In the shoulder months of spring and fall, temperatures can vary significantly and may affect UFG due to timing of the implementation of the seasonal operating plan.
7	Third-party damage to pipelines	Gas lost to atmosphere.

<sup>10</sup> Exhibit 29250-X0001, application, Table 5.2, PDF page 9.

19. ATCO Gas also provided the following information in compliance with the direction in Decision 28406-D01-2023:<sup>11</sup>

- Explanations of seasonal UFG differences, measurement corrections and reasons for increases or decreases.
- Information on practices and procedures it has employed to reduce UFG.
- Details with respect to all measurement adjustments showing the reconciliation of prior years' data.
- Net results of the adjustments to UFG, both in terms of energy and as a percentage of receipts.

20. ATCO Gas provided the following explanation of the seasonal differences in UFG:

10. ATCO Gas has over 1.3 million delivery points of which the vast majority are read on monthly cycles. Cycle billing is the most efficient method for billing large numbers of customers. The DFSS [Daily Forecasting and Settlement System] allocates monthly meter readings to daily flow using daily average temperature as well as other factors such as season and day of week. As a result, the calendarized monthly deliveries reported are calculated estimates and affect the accuracy of UFG on a month-to-month basis in the shoulder and summer months. ATCO Gas maintains that the accuracy of UFG is more appropriately reviewed over a longer period of time, such as a year, to reduce the timing effect of the DFSS estimates.<sup>12</sup>

21. ATCO Gas also provided details of the aggregated 167 terajoules of measurement adjustments processed in 2023, explaining that there were 15 instances of measurement equipment problems and one occurrence of a late meter read.<sup>13</sup>

22. In response to the Commission's direction, ATCO Gas stated that it has taken continuous steps to reduce UFG, including meter sizing procedures, seasonal operating plans, an annual leak detection and repair program, and efforts in collaboration with ATCO Pipelines, the owner of the natural gas transmission system to which ATCO Gas's distribution system connects.<sup>14</sup>

23. In Decision 28406-D01-2023, the Commission also directed ATCO Gas to report the carbon levy associated with heater line usage in future Rider L applications. In Decision 29062-D01-2024, the Commission confirmed that ATCO Gas had complied with this direction.<sup>15</sup>

24. The Commission expects that ATCO Gas will improve its ability to identify and quantify the causes of UFG at various points on its system, which will help it identify and pursue the most cost-effective solutions for minimizing UFG fluctuations and overall UFG amounts. Accordingly, the Commission directs ATCO Gas, in its next UFG application, to continue to provide:

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<sup>11</sup> Decision 28406-D01-2023, paragraph 26.

<sup>12</sup> Exhibit 29250-X0001, application, paragraph 15.

<sup>13</sup> Exhibit 29250-X0001, application, paragraph 17.

<sup>14</sup> Exhibit 29250-X0001, application, paragraphs 20-25.

<sup>15</sup> Decision 29062-D01-2024: ATCO Gas, a division of ATCO Gas and Pipelines Ltd., 2024 Load Balancing Deferral Account Rider L, Proceeding 29062, July 9, 2024, paragraph 13.



- A relative ranking of UFG causes and quantify the causes of UFG, where possible.
- Explanations of seasonal UFG differences, measurement corrections and reasons for increases or decreases.
- Information on practices and procedures it has employed to reduce UFG.
- Details with respect to all measurement adjustments showing the reconciliation of prior years' data.
- Net results of the adjustments to UFG, both in terms of energy and as a percentage of receipts.

#### 4 Order

25. It is hereby ordered that:

- (1) ATCO Gas and Pipelines Ltd.'s Rider D is approved, effective November 1, 2024, as set out in [Appendix 3](#) of this decision.
- (2) ATCO Gas and Pipelines Ltd.'s Rider P is approved, effective November 1, 2024, as set out in [Appendix 4](#) of this decision.

Dated on September 9, 2024.

#### Alberta Utilities Commission

*(original signed by)*

Olexandr Vasetsky  
Director, Electric and Gas Distribution, Rates  
On behalf of the Alberta Utilities Commission

**Appendix 1 – Proceeding participants**

<b>Name of organization (abbreviation) Company name of counsel or representative</b>
ATCO Gas and Pipelines Ltd. (ATCO Gas)

Alberta Utilities Commission  Delegated Authority O. Vasetsky, Director, Electric and Gas Distribution  Commission staff C. Young
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## Appendix 2 – Summary of Commission directions

This section is provided for the convenience of readers. In the event of any difference between the directions in this section and those in the main body of the decision, the wording in the main body of the decision shall prevail.

1. Because the applied-for Rider D and Rider P percentages are calculated based on data from January 2019 to December 2023, the Commission acknowledges that the solution implemented by ATCO Gas in April 2024 would not yet have any effect on the 2024 UFG Rider D and Rider P calculations. The Commission directs ATCO Gas to provide an update on the efficacy of its virtual valves solution at the time of the next Rider D and Rider P application..... paragraph 14
2. The Commission expects that ATCO Gas will improve its ability to identify and quantify the causes of UFG at various points on its system, which will help it identify and pursue the most cost-effective solutions for minimizing UFG fluctuations and overall UFG amounts. Accordingly, the Commission directs ATCO Gas, in its next UFG application, to continue to provide:
  - A relative ranking of UFG causes and quantify the causes of UFG, where possible.
  - Explanations of seasonal UFG differences, measurement corrections and reasons for increases or decreases.
  - Information on practices and procedures it has employed to reduce UFG.
  - Details with respect to all measurement adjustments showing the reconciliation of prior years’ data.
  - Net results of the adjustments to UFG, both in terms of energy and as a percentage of receipts .....paragraph 24

## Appendix 3 – ATCO Gas Rate Rider D

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Appendix 3 - ATCO  
Gas Rider D

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## Appendix 4 – ATCO Gas Rate Rider P

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Appendix 4 - ATCO  
Gas Rider P

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ATCO Gas  
2024 Rider D

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Effective November 1, 2024 by Decision 29250-D01-2024  
This Replaces Rider "D"  
Previously Effective November 1, 2023

**ATCO GAS AND PIPELINES LTD.  
ATCO GAS RIDER "D" TO DISTRIBUTION ACCESS SERVICE CUSTOMERS  
FOR THE RECOVERY OF UNACCOUNTED FOR GAS (UFG)**

All Retailer and Default Supply Provider Customers utilizing Distribution Access Service for delivering gas off the ATCO Gas distribution system will be assessed a distribution UFG charge of 1.486 percent at the Point of Delivery. The UFG assessment will be made up "In-Kind" from each Customer Account.



ATCO Gas  
2024 Rider P

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Effective November 1, 2024 by Decision 29250-D01-2024  
This Replaces Rider "P"  
Previously Effective November 1, 2023

**ATCO GAS AND PIPELINES LTD.  
ATCO GAS RIDER "P" TO PRODUCERS  
FOR THE RECOVERY OF UNACCOUNTED FOR GAS (UFG)**

All Producers utilizing Distribution Access Service for exporting gas off the ATCO Gas distribution system will be assessed a distribution UFG charge of 1.463 percent at the Point of Export. The UFG assessment will be made up "In-Kind" from each Producer Account.