



Apex Utilities Inc.

2022-2023 Unaccounted-For Gas Rider E and Rider H

September 12, 2022

Alberta Utilities Commission

Decision 27552-D01-2022

Apex Utilities Inc.

2022-2023 Unaccounted-For Gas Rider E and Rider H
Proceeding 27552

September 12, 2022

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1 Decision summary

1. For the reasons set out in this decision, the Alberta Utilities Commission approves Apex Utilities Inc.'s unaccounted-for gas (UFG) rate Rider E of 1.02 per cent and Rider H of 1.03 per cent, as filed, effective November 1, 2022.

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 the 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 unaccounted-for gas or 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.¹ 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 current regulatory framework, the cost of UFG is ultimately passed on to customers through retailers; gas producers using the distribution system also pay for their share of UFG. In Apex's case this is done by means of Rider E and Rider H.

5. Rider H recovers UFG in kind from all retailers and default supply providers that use the Apex distribution system.² For example, if the applied-for Rider H of 1.03 per cent is approved, retailers and default supply providers must buy an extra 1.03 per cent of natural gas than what is delivered to their customers to offset for UFG and zero balance the deliveries and receipts on the system.³

6. Rider E recovers UFG associated with producer transportation service to ensure the quantity of gas Apex delivers for producer transportation customers is kept in balance with the quantity of gas Apex receives from these customers. Based on Rider E, producer transportation customers must provide their share of UFG, in kind. For example, if the applied-for Rider E of 1.02 per cent is approved, producer transportation customers will have 1.02 per cent less gas

¹ UFG is commonly referred to as "gas losses"; however, there are many other drivers of UFG. For example, as discussed further in this decision, one of the drivers is metering and billing errors, and they may result in a positive amount of UFG (i.e., gas "gains" rather than "losses").

² Decision 2013-396: AltaGas Utilities Inc., 2013-2014 Rider E and Rider H (Unaccounted-For Gas), Proceeding 2815, Application 1609896-1, October 31, 2013, paragraph 10.

³ Exhibit 27552-X0001.01, application, PDF page 5.

delivered to a point of delivery than what they injected in Apex's distribution system. Rider E is also used in the determination of Apex's gas cost recovery rate (Rider D) and third-party transportation rate (Rider G).⁴

7. Both riders are similarly designed and follow the same Commission-approved methodology to calculate the amounts. Specifically, Rider E is calculated annually using the most recent five-year average of Apex's annual UFG percentages, which are derived by dividing UFG (system receipts minus deliveries) by system receipts.⁵ Rider H is calculated using the most recent five-year average of Apex's annual UFG percentages, but uses system deliveries as the divisor in the calculation, as required by Rule 028: *Natural Gas Settlement System Code Rules*.⁶

8. On July 27, 2022, Apex filed an application with the Commission requesting approval of its 2022-2023 UFG Rider E and Rider H, effective November 1, 2022. Apex calculated Rider E to increase from the currently approved value of 0.97 per cent to 1.02 per cent, and Rider H to increase from 0.98 per cent to 1.03 per cent.

9. In past UFG decisions,⁷ the Commission stated that while not all causes of UFG can be eliminated, it expects Apex to improve its ability to identify and quantify UFG and pursue cost-effective strategies to minimize fluctuations and total UFG amounts. The Commission directed Apex to quantify the causes of UFG, where possible, and to provide reasons for any year-over-year change in UFG. Apex was also directed to continue to take action to reduce UFG fluctuations and UFG amounts overall and to provide historical monthly data for the receipt and delivery volumes and UFG percentage losses or gains as well as a regional UFG breakdown.

3 Analysis of issues

3.1 UFG calculations and Rider E and Rider H amounts

10. In the application Apex did not propose any changes to the approved methodology for calculating Rider E or Rider H. The most recent five-year averages are reproduced below.

⁴ Exhibit 27552-X0001.01, application, PDF page 3.

⁵ As explained in Decision 2013-367: AltaGas Utilities Inc., Application Requesting a New Rate Rider H (Unaccounted-for Gas) for Compliance with AUC Rule 028, Proceeding 2721, Application 1609767, September 27, 2013, at PDF pages 7-8, unlike other forms of distribution service on Apex's system, where customer-specific measurement is undertaken at the point of delivery, customer-specific measurement for producer transportation service is undertaken at the point of receipt. Due to this, UFG for producer transportation service must be calculated on measured receipt quantities and, therefore, requires a separate rider calculated as a percentage of receipts.

⁶ Exhibit 27552-X0001.01, application, PDF page 2.

⁷ Most recently in Decision 26740-D01-2021: Apex Utilities Inc., 2021-2022 Unaccounted-For Gas Rider E and Rider H, Proceeding 26740, September 7, 2021.

Table 1. Determination of UFG Rider E amounts for 2022-2023⁸

Previous five years UFG percentages for the year ended May 31	Annual UFG percentage loss
2018	0.96
2019	1.35
2020	0.68
2021	0.83
2022	1.27
Arithmetic average	1.02

Table 2. Determination of UFG Rider H amounts for 2022-2023⁹

Previous five years UFG percentages for the year ended May 31	Annual UFG percentage loss
2018	0.96
2019	1.37
2020	0.69
2021	0.84
2022	1.28
Arithmetic average	1.03

11. The Commission has compiled tables 3 and 4 below to show the last five years of approved Rider E and Rider H.

Table 3. Historical approved UFG Rider E

Year	Commission-approved five-year UFG average percentage loss
2017-2018	1.12
2018-2019	1.04
2019-2020	1.10
2020-2021	0.98
2021-2022	0.97
2022-2023 (Proposed)	1.02

Table 4. Historical approved UFG Rider H

Year	Commission-approved five-year UFG average percentage loss
2017-2018	1.14
2018-2019	1.05
2019-2020	1.11
2020-2021	0.99
2021-2022	0.98
2022-2023 (Proposed)	1.03

⁸ Exhibit 27552-X0001.01, application, PDF page 4.

⁹ Exhibit 27552-X0001.01, application, PDF page 6.

12. In the application, Apex indicated that the most significant causes of UFG, in order of estimated contributions to overall UFG on its system, were:¹⁰

- third-party pipeline damages;
- pipeline leaks;
- safe purging of natural gas to the atmosphere due to construction activities;
- measurement issues, including meter failures and billing errors;
- gas theft; and
- natural gas releases due to normal system operation such as purging and maintenance.

13. The Commission is satisfied that Apex's calculations of the UFG Rider E and Rider H are accurate and consistent with the prior-approved methodology.

14. 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.¹¹ As shown in the tables above, while Apex's applied-for UFG percentage applied for the 2021-2022 period is higher than the approved UFG percentages in the last two years, it still falls within the historical range.

15. The Commission is satisfied with Apex's explanation of the most significant causes of UFG for the reporting period and with the further analysis of its UFG as detailed in Section 3.2 that follows. Based on this information, 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 Apex's UFG are not a cause of concern.

16. For these reasons, the Commission approves Apex's rate Rider E of 1.02 per cent and Rider H of 1.03 per cent, both effective November 1, 2022.

3.2 Compliance with previous Commission directions

17. In addition to identifying the most significant causes of UFG, Apex provided the following information in compliance with the directions in Decision 26740-D01-2021:¹²

- Monthly data for the period of June 2012 to May 2022.¹³
- UFG by region.
- A description of actions taken to reduce UFG and UFG fluctuations, which includes ongoing review and monitoring; Apex's infrastructure renewal program; meter testing; Apex's active leak survey program and the practice of immediate leak remediation;

¹⁰ Exhibit 27552-X0001.01, application, Schedule E, paragraph 2.

¹¹ Decision 2013-396, paragraph 30.

¹² Decision 26740-D01-2021, paragraph 21.

¹³ Exhibit 27552-X0002, Attachment 1 – Rider E and Rider H 10-Year Historical Monthly Data - 2022-07-27.

continual support of damage prevention efforts; and continual improvement of processes that identify and reduce UFG.

18. Apex provided a regional analysis of UFG data separated into north, central and south regions from June 2021 to May 2022.¹⁴ Where possible, Apex described the causes of UFG and any identified issues by region, but reiterated from previous filings that the exact quantification of UFG is impractical given the variable nature of each of the known contributors.¹⁵

19. Apex indicated that the north region saw a minimal increase in UFG primarily due to a slight increase in pipeline leaks. During the 2021-2022 reporting period, Apex identified and repaired 87 leaks compared to 79 leaks identified during the 2020-2021 reporting period. Apex explained that the slight increase in leaks was not unexpected given the high volume of non-certified polyethylene pipe installed in the area, which it is focused on replacing through its infrastructure renewal capital program.¹⁶

20. The central region saw a decrease in UFG in 2021-2022 compared to the previous reporting period. Apex attributed this to many factors, of which the most notable was the reduction in facility damages from 42 in 2020-2021 to 36 in the 2021-2022 reporting period. This reduction is consistent with the downward trend for third-party damages in the central region over recent years.¹⁷

21. Beginning in 2018, the south region experienced an abnormality where the calculated UFG suggested a slight gain, instead of a loss. Given that Apex does not produce natural gas, a UFG gain is physically improbable, and Apex underwent a detailed audit to identify the problem and develop a plan to remediate it.¹⁸ Apex finished the audit and has ruled out the possibility of physical gains within the system.

22. Apex approached the audit with a combination of physical and data-driven investigations. The following activities were conducted as part of the audit:

- confirmed electric volume corrector configurations
- confirmed technicians are using properly configured pressure gauges
- conducted pressure factor checks
- validated elevation zones
- verified supercompressibility factors
- inspected all source stations
- confirmed valve positions
- verified purchase meter and instrument configurations¹⁹

¹⁴ Exhibit 27552-X0003, Attachment 2 – UFG by Region 2022-07-27.

¹⁵ Exhibit 27552-X0001.01, application, paragraph 3.

¹⁶ Exhibit 27552-X0001.01, application, paragraphs 8-9.

¹⁷ Exhibit 27552-X0001.01, application, paragraphs 10-11.

¹⁸ Exhibit 27552-X0004, Attachment 3- 2022 South Region UFG Audit Report 2022-07-27, paragraph 2.

¹⁹ Exhibit 27552-X0004, Attachment 3- 2022 South Region UFG Audit Report 2022-07-27, paragraph 8.

23. In 2021, after the completion of the audit activities mentioned above and a review of gas measurement factors, Apex implemented a new customer information system (CIS). After the transition was completed and the identified errors corrected, UFG in the south region normalized and now reflects a loss in line with Apex's other service areas. Going forward, all truncation and correction factors within the CIS will be automatically applied and updated by equipment rather than being manually inputted to reduce the frequency of errors that contribute to the amount of UFG.²⁰

24. The Commission has reviewed the historical UFG data, the reasons provided by Apex for variations in the UFG amounts, Apex's explanation for UFG broken down by region and the steps that Apex has taken to reduce UFG in response to previous Commission directions, most recently set out in Decision 26740-D01-2021. The Commission finds that Apex has complied with the directions from Decision 26740-D01-2021.

25. The Commission continues to expect Apex to 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, consistent with past decisions, the Commission directs Apex, in its next UFG application, to continue to:

- Provide a relative ranking of UFG causes.
- Quantify the causes of UFG, where possible.
- Describe the specific actions taken by Apex to reduce UFG fluctuations and UFG overall amounts.
- Provide reasons for year-over-year changes in Apex's UFG.
- Provide the historical data set, which spans the period for the most recent 10 years of monthly data to the most current month for the receipt and delivery volumes and UFG percentage losses or gains.
- Provide a regional UFG breakdown and any explanation and insight gained from the regional analysis.

4 Order

26. It is hereby ordered that:

- (1) Apex Utilities Inc.'s Rate Rider E is approved at 1.02 per cent, effective November 1, 2022.
- (2) Apex Utilities Inc.'s Rate Rider H is approved at 1.03 per cent, effective November 1, 2022.

²⁰ Exhibit 27552-X0004, Attachment 3- 2022 South Region UFG Audit Report 2022-07-27, paragraphs 42-43.

- (3) Rate Rider E and Rate Rider H schedules are approved as filed and as attached to this decision as [Appendix 3](#) and [Appendix 4](#), respectively.

Dated on September 12, 2022.

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

Name of organization (abbreviation) Company name of counsel or representative
Apex Utilities Inc. (Apex)

Alberta Utilities Commission
Delegated authority O. Vasetsky, Director, Electric and Gas Distribution
Commission staff M. Logan B. Edwards

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. The Commission continues to expect Apex to 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, consistent with past decisions, the Commission directs Apex, in its next UFG application, to continue to:
 - Provide a relative ranking of UFG causes.
 - Quantify the causes of UFG, where possible.
 - Describe the specific actions taken by Apex to reduce UFG fluctuations and UFG overall amounts.
 - Provide reasons for year-over-year changes in Apex’s UFG.
 - Provide the historical data set, which spans the period for the most recent 10 years of monthly data to the most current month for the receipt and delivery volumes and UFG percentage losses or gains.
 - Provide a regional UFG breakdown and any explanation and insight gained from the regional analysis.....paragraph 25

Appendix 3 – Apex Rate Rider E

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Appendix 3 - Apex
Rate Rider E

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Appendix 4 – Apex Rate Rider H

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Appendix 4 - Apex
Rate Rider H

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Apex Utilities Inc.

2022-2023 UFG Rate Rider E

Application

SCHEDULE A

RATE RIDER E	UNACCOUNTED-FOR GAS
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FOR THE DETERMINATION OF UNACCOUNTED-FOR GAS (UFG)

The Unaccounted-For Gas Rate Rider will be used in the calculation of the Gas Cost Recovery Rate Rider D, the Third Party Transportation Rate Rider G, and to determine the amount of Unaccounted-For Gas as defined in Apex Utilities Inc.'s Terms and Conditions of Service.

Unaccounted-For Gas Rider: 1.02%

EFFECTIVE DATE: November 1, 2022	REPLACING RATE EFFECTIVE: November 1, 2021	RIDER E
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Apex Utilities Inc.

SCHEDULE C

RATE RIDER H	UNACCOUNTED-FOR GAS GAS SETTLEMENT
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FOR THE DETERMINATION OF UNACCOUNTED-FOR GAS (UFG)

The Unaccounted-For Gas Rate Rider H will be applied to all Retailers in the determination of Gas Settlement amounts. Retailers will be assessed a distribution UFG charge at the Point of Delivery. The UFG assessment will be made up 'in-kind' from each Retailer account.

Unaccounted-For Gas Rider: 1.03%

EFFECTIVE DATE: November 1, 2022	REPLACING RATE EFFECTIVE: November 1, 2021	Page 1 of 1 RIDER H
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Apex Utilities Inc.