AUC
Alberta Utilities Commission

ATCO Gas and Pipelines Ltd.

Yellowhead Mainline Project – Need Assessment Application

August 21, 2025

Alberta Utilities Commission
Decision 29318-D01-2025
ATCO Gas and Pipelines Ltd.
Yellowhead Mainline Project – Need Assessment Application
Proceeding 29318
Application 29318-A001

August 21, 2025

Published by the:
Alberta Utilities Commission
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
Website: www.auc.ab.ca

Contents

List of figures

List of tables

1 Executive summary

1. In this decision, the Alberta Utilities Commission approves an application from ATCO Pipelines, a division of ATCO Gas and Pipelines Ltd., to establish the need for the Yellowhead Mainline Project (Yellowhead Mainline). The purpose of the project is to increase capacity on the Integrated Alberta System (IAS) to support increasing natural gas demand in Alberta.

2. The Office of the Utilities Consumer Advocate (UCA), the Consumers' Coalition of Alberta (CCA) and the Western Export Group (WEG) raised concerns about the need application.[1] The Commission weighed those concerns against the evidence of the need for the Yellowhead Mainline, and finds that ATCO Pipelines has established the need for the proposed project for the reasons set out in detail below, including:

- Upgrades are required to meet contract and forecast demand on the IAS.
- The Yellowhead Mainline adds 1,350 terajoules per day (TJ/day) of incremental capacity on the IAS. This incremental capacity is underpinned by approximately 1,125 TJ/day of executed firm transportation delivery contracts.
- The Yellowhead Mainline is supported by executed 15-year contracts, long-term growth forecasts and historically high renewal rates for contracted service on the IAS.
- The Yellowhead Mainline is the best technical solution to meet growing demand on the IAS.

3. The Commission approves the need for the configuration identified by ATCO Pipelines as Alternative 4.3.[2]

4. For the purposes of assessing need, the Commission has considered the general geographic location of the Yellowhead Mainline, including the sites at which it might interconnect with the IAS, and the characteristics of the proposed pipeline, including its size and capacity. However, the Commission makes no findings in this decision on the acceptability of the pipeline routing, or any site-specific impacts. ATCO Pipelines is required to file a separate facility application to establish whether the construction (including routing) and operation of approximately 226 kilometres of new 914-millimetre pipeline from the Peers, Alberta, area into the Fort Saskatchewan area, is in the public interest.

[1] The Commission also received statements of intent to participate in support of the project from the Industrial Gas Consumers Association of Alberta (IGCAA); Tenaska Marketing Canada, a division of TMV Corp. (TMC); Canadian Association of Petroleum Producers (CAPP); and NGTL GP Ltd., as general partner on behalf of NGTL Limited Partnership (NGTL).

[2] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 30, paragraphs 66 and 67.

5. ATCO Pipelines will also be required to include the costs associated with constructing and operating the Yellowhead Mainline in a future general rate application, which the Commission will assess for prudence prior to the inclusion of any such costs in ATCO Pipelines' revenue requirement.

2 Overview of the Yellowhead Mainline Project

6. The Yellowhead Mainline is a proposed new pipeline project that would serve as an additional flow path on the IAS. The IAS is a natural gas transmission network in Alberta that includes assets that are owned and operated by both ATCO Pipelines and NGTL GP Ltd., as a general partner on behalf of NGTL Limited Partnership (NGTL).[3]

7. The IAS is designed and operated as a single integrated natural gas transmission system, pursuant to the Alberta System Integration Agreement (Integration Agreement).[4] Under the Integration Agreement, NGTL is responsible for applying a single system design methodology (the holistic assessment of the IAS), in consultation with ATCO Pipelines, to identify the need for new projects on the IAS.[5]

8. The long-term development of the IAS is guided by the Alberta System Annual Plan (Annual Plan), which is developed by NGTL.[6] The Annual Plan considers natural gas receipt (supply) and delivery (demand) forecasts and system design flows to provide an overview of potential IAS facilities to meet aggregate system requirements. The 2023 Annual Plan refers to three areas that comprise the IAS: the Peace River Project Area, the North and East Project Area, and the Mainline Project Area. In the 2023 Annual Plan, the Yellowhead Mainline was identified as a potential new major corridor on the IAS that would allow natural gas to flow from the gas-rich region of west-central Alberta (the Peace River Project Area) to the greater Edmonton area (which forms part of the North and East Project Area).

9. NGTL identified that the Peace River Project Area (shown in Figure 1, below) is expected to represent an increasing share of aggregate system supply, at upwards of 90 per cent.[7] Increasing supply from the Peace River Project Area would serve to offset supply declines in other areas and increase the total system supply, matching the increasing aggregate system demand.[8] As this area represents a large portion of total system supply, NGTL stated that ensuring flows out of the Peace River Project Area and into the demand markets attached to the system is critical to balancing system requirements.[9] NGTL forecast that, without a new pipeline,

[3] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 7, paragraph 2.
[4] The Alberta System Integration Agreement was approved by the Commission in Decision 2010-228: ATCO Pipelines – 2010-2012 Revenue Requirement Settlement and Alberta System Integration Proceeding 223, Application 1605226, May 27, 2010.
[5] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 10, paragraph 14.
[6] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 12, paragraph 17.
[7] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 22, paragraph 48.
[8] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 81.
[9] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 22, paragraph 48.

there would be a shortfall between the design flow and design capacity of the existing infrastructure, underpinning the need for new facilities.[10]

10. NGTL also identified that natural gas demand is expected to continue to grow in the greater Edmonton area, which is part of the North and East Project Area (shown in Figure 1). Deliveries in this area are a mix of power generation projects, industrial projects, and residential and commercial developments.[11] NGTL stated that increased industrial, residential and commercial demand has resulted in incremental firm transportation-delivery contracts.[12]

11. NGTL determined that the Yellowhead Mainline would provide an additional direct and efficient path for Peace River Project Area supply to meet demand in the greater Edmonton area.[13]

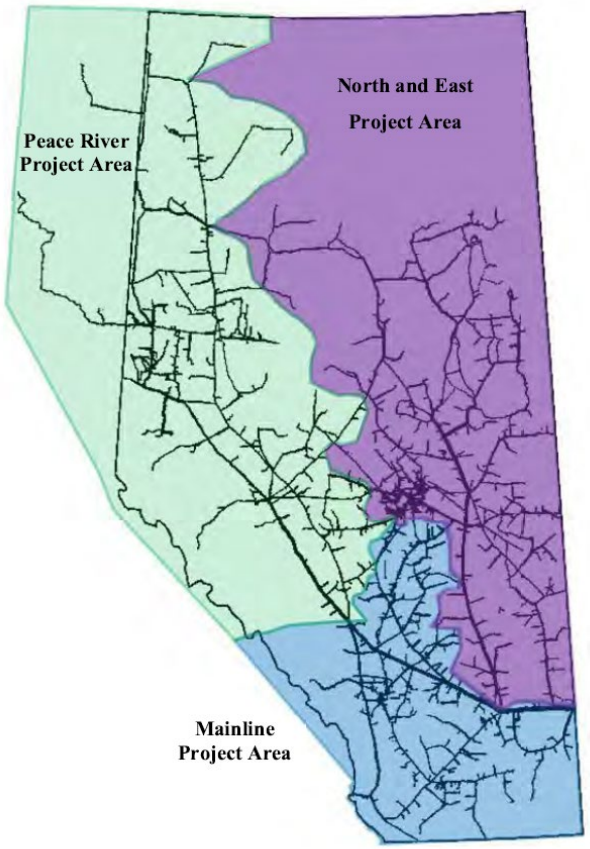

Figure 1. NGTL project areas[14]

12. ATCO Pipelines also conducted its own assessment. In response to NGTL identifying a proposed expansion project, ATCO Pipelines performed its own hydraulic modelling to assess potential options to bring natural gas from the NGTL portion to the ATCO Pipelines portion of the IAS, and completed economic analyses to assess the relative costs of these options.

[10] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 18, paragraph 38.
[11] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 86.
[12] Exhibit 29318-X0020, NGTL Yellowhead Mainline Written Submission, PDF page 1.
[13] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 89.
[14] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 68, Figure 1-1.

ATCO Pipelines' assessment considered the geographical location of assets and complexities of system interconnection.[15] Based on these assessments, ATCO Pipelines applied for the need for the Yellowhead Mainline.

13. In this application, ATCO Pipelines seeks approval of the need for the Yellowhead Mainline, which includes adding the following pipeline facilities to the IAS:

- Approximately 226 kilometres of new 914-millimetre high-pressure pipeline with a maximum operating pressure of 8,450 kilopascals (kPa), originating in the Peers, Alberta, area and terminating in the Fort Saskatchewan, Alberta, area; more specifically, from the northeast quarter of Section 27, Township 54, Range 14, west of the Fifth Meridian (NE-27-54-14W5M) to an area in between the southwest quarter of Section 21, Township 53, Range 23, west of the Fourth Meridian (SW-21-53-23W4M) and northwest quarter of Section 27, Township 55, Range 21, west of the Fourth Meridian (NW-27-55-21W4M).

- An interconnect station at NE-27-54-14W5M to tie into NGTL's January Creek transmission line.

- A control station at a point in between SW-21-53-23W4M and NW-27-55-21W4M to tie into ATCO Pipelines Inland transmission system.

- An 18-megawatt (MW) compressor station at a location along the pipeline route.

14. ATCO Pipelines indicated that the facilities would have an in-service date in the fourth quarter of 2027. ATCO Pipelines submitted that the project route has not been finalized at the time of this application, but it is considering the options shown in Figure 2.

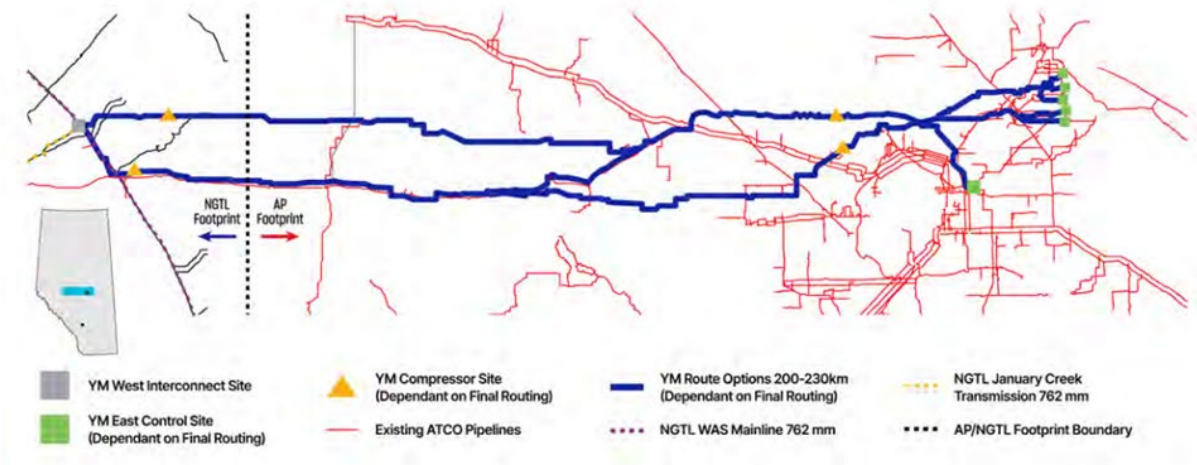

Figure 2. Yellowhead Mainline Project location and Integrated Alberta System footprint areas[16]

[15] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 23, paragraph 53.

[16] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 11, Figure 1.1.

3 The Commission's role in assessing gas utility pipeline need

15. The Commission regulates gas utility pipelines in Alberta. A gas utility, such as ATCO Pipelines, must obtain several different approvals from the AUC to construct and operate a new gas utility pipeline. The gas utility must obtain the Commission's approval for the forecast capital expenditures for new pipeline facilities, as part of a rate application pursuant to the *Gas Utilities Act*. The gas utility must also obtain approval to construct and operate the new pipeline, as part of a facility application pursuant to the *Pipeline Act* and the *Gas Utilities Act*. The rate application focuses on ensuring that the costs recovered through customer rates are just and reasonable. The facility application focuses on the site-specific impacts of the project.

16. The gas utility must also demonstrate, as a threshold matter, that the pipeline is needed. The Commission will typically assess the need for the pipeline in the first instance that the gas utility identifies the project to the Commission, either as part of a rate application or a facility application. However, there is no statutory requirement to proceed in this fashion.

17. ATCO Pipelines initially introduced the Yellowhead Mainline within its 2024-2026 General Rate Application.[17] At that time, the scope, forecast costs and timing of the Yellowhead Mainline remained uncertain, so ATCO Pipelines requested approval of an NGTL Identified Growth deferral account, which included the Yellowhead Mainline, and a zero-dollar placeholder to record construction work in progress for future inclusion in rate base for the project. The Commission denied the deferral account request on the basis that it was premature, finding that absent more tangible information, approval of the requested deferral account would shift a disproportionate amount of risk onto ratepayers. At the time, ATCO Pipelines confirmed that the details regarding the scope, timing and forecast costs of the Yellowhead Mainline would be filed in a future need application.[18]

18. ATCO Pipelines subsequently filed the current application requesting that the Commission assess the need for the Yellowhead Mainline on a stand-alone basis, in advance of a related rate or facility application.

19. The CCA questioned ATCO Pipelines' rationale for requesting approval of need on a stand-alone basis and suggested that this approach may be an attempt to constrain the future rate or facility applications. The CCA also submitted that considering need on a stand-alone basis is inconsistent with Rule 007.[19]

20. WEG questioned the efficacy of the Commission deciding the need for the Yellowhead Mainline in response to an application from ATCO Pipelines, without the involvement of the Canada Energy Regulator (CER) and without NGTL participating as an applicant. WEG stated that under the Integration Agreement, NGTL identified and assessed the need for the Yellowhead Mainline. NGTL effectively directed ATCO Pipelines to obtain regulatory approval for, and to construct, the facilities.[20] WEG stated that the evidence of NGTL's assessment of the need is not before the Commission and that NGTL should have

---

17 Exhibit 28369-X0002.02, ATCO Pipelines 2024-2026 General Rate Application, PDF page 4, paragraph 5.
18 Decision 28369-D01-2024, 2024-2026 General Rate Application Negotiated Settlement Agreement and Excluded Matters, PDF page 10.
19 Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines*.
20 Transcript, Volume 1, page 185, lines 2-25.

sought an assessment of the need from the CER.[21] WEG submitted that the Commission can only look at the ATCO Pipelines footprint, but the need is underpinned by aggregate demand on both the NGTL and ATCO Pipelines portions of the system.[22]

21. The Commission's authority to consider the need for gas utility pipelines in Alberta is found in Section 4 of the *Pipeline Act* and Section 4.1 of the *Gas Utilities Act*.

22. Section 4.1(1) of the *Gas Utilities Act* states that the Commission exercises all the powers, functions and duties of the Alberta Energy Regulator set out in the *Pipeline Act* with respect to gas utility pipelines. Sections 4(a) and 4(b) of the *Pipeline Act* provide that the Commission may inquire into and examine any matter relating to:

> (a) the economic, orderly and efficient development in the public interest of pipeline facilities in Alberta;
>
> (b) the observance of safe and efficient practices in the construction, operation, discontinuation and abandonment of pipelines;

23. The authority under Section 4 of the *Pipeline Act* is consistent with the authority granted to the Commission by sections 22 and 24 of the *Gas Utilities Act*. Section 22 authorizes the Commission to exercise "general supervision" over all gas utilities and their owners and to make any orders regarding "equipment, appliances, extensions of works or systems, reporting and other matters" that are necessary for the convenience of the public. Section 24 empowers the Commission to investigate on its own motion any matter concerning a gas utility.

24. Finally, Section 8(2) of the *Alberta Utilities Commission Act* empowers the Commission to "act on its own initiative or motion and do all things that are necessary for or incidental to the exercise of its powers and the performance of its duties and functions."

25. When it received the need application, the Commission asked ATCO Pipelines to justify why it was most efficient and effective to address the need for the Yellowhead Mainline in a stand-alone application, rather than waiting to assess the need within the application to construct and operate facilities or as part of ATCO Pipelines' next general rate application. ATCO Pipelines submitted that assessing need in a stand-alone proceeding was the most efficient and timely way to ensure that it could address the contract and forecast demand for natural gas utility service anticipated for 2027. ATCO Pipelines indicated that approval of the need would provide a degree of certainty about the anticipated sizing and scope of the project, thereby allowing it to make commitments for certain long-lead time expenditures with reduced financial risk.

26. ATCO Pipelines confirmed its understanding that approval of the physical facilities would still be required to allow the project to proceed, and that any costs incurred in relation to the project would be subject to a prudence assessment in a future general rate application. ATCO Pipelines also confirmed that approval of the need does not alter how these future applications are to be considered by the Commission, in terms of either the regulatory framework that applies or the requirements that must be met.[23]

---

[21] Transcript, Volume 1, page 186, lines 1-6.
[22] Transcript, Volume 1, page 185, lines 7-10.
[23] Transcript, Volume 1, page 66, line 17 to page 68, line 13. Transcript, Volume 2, page 279, lines 11-21.

27. The Commission is satisfied that ATCO Pipelines has met the information requirements in Rule 007 that apply to gas utility pipeline need applications. The Commission is also satisfied that it has the authority to assess need on a stand-alone basis, and that this is the most efficient approach in the current circumstances taking into consideration both the timing of the need for pipeline capacity beginning in 2027, as discussed in greater detail below, and the practical realities of sourcing and procuring long-lead time materials.

28. As previously confirmed by the Commission, both the Commission and the CER have roles established under the Integration Agreement. The Commission maintains its jurisdiction under the *Pipeline Act* and the *Gas Utilities Act* to approve the need for additions proposed by ATCO Pipelines within its footprint. In accordance with the Integration Agreement, NGTL declined its construction and ownership rights to the portion of the Yellowhead Mainline located within the NGTL footprint. ATCO Pipelines and NGTL proposed that ATCO Pipelines be the sole owner and operator of the Yellowhead Mainline.[24] Accordingly, the Commission has jurisdiction to decide whether there is a need for the Yellowhead Mainline facilities. There is no basis to reassess the framework that governs the roles of the Commission and the CER in relation to the Integration Agreement, or the IAS, in this decision as was suggested by WEG.[25]

29. Evidence supporting the assessment of the need for the Yellowhead Mainline was not limited to the ATCO Pipelines footprint. The evidence before the Commission included NGTL's 2023 Annual Plan, the alternatives considered to meet the need, and how the project addresses need on the broader system, all of which was filed as part of ATCO Pipelines' application. The Commission considered the entirety of the record in this proceeding and is satisfied that ATCO Pipelines provided sufficient evidence to substantiate the need for the Yellowhead Mainline, as discussed in Section 4.

30. The Commission emphasizes that the need approval is not the only approval required before ATCO Pipelines is permitted to construct the project. ATCO Pipelines must apply separately to the Commission for approval to construct and operate the facilities. ATCO Pipelines will be required to demonstrate that construction and operation of the facilities is in the public interest, having regard to the social and economic effects of the pipeline facilities and the effects on the environment.

31. The prudence of the costs associated with the project are also the subject of a different application. ATCO Pipelines' revenue requirement must be approved by the Commission in a general rate application. Following Commission approval, ATCO Pipelines recovers its revenue requirement through a monthly charge to NGTL, in accordance with the Integration Agreement. To recover any forecast costs associated with the Yellowhead Mainline, ATCO Pipelines will be required to demonstrate that it is just and reasonable to include all of the costs associated with the Yellowhead Mainline in rates. In approving the need application, the Commission is therefore not divesting any authority to evaluate all facility and rate application matters.

[24] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 11, paragraph 15.

[25] Decision 25937-D01-2021, ATCO Gas and Pipelines Ltd. - Pipeline Acquisition from Pioneer Pipeline Inc., Proceeding 25937, Applications 25937-A001 and 25937-A002, June 15, 2021, PDF page 6, paragraphs 16-17.

4 Has ATCO Pipelines demonstrated the need for a system expansion?

32. In this section, the Commission concludes that ATCO Pipelines has demonstrated the need for a system expansion. In doing so, the Commission considers the demand underpinning the need for the Yellowhead Mainline, including the firm contracted pipeline capacity and forecast demand. The Commission also considers that the Yellowhead Mainline would provide an efficient means to bring supply from the Peace River Area to areas of demand on the IAS.

33. The need is underpinned by contract demand and forecast demand. Contract demand refers to executed contracts for firm transportation-delivery (FT-D) service. Forecast demand is determined by NGTL based on information from several sources.[26] These sources include 10-year demand forecasts from operators of downstream facilities, such as connecting pipelines, local distribution companies and industrial facilities, historical flow patterns at various NGTL delivery points, and growth rates for specific demand sectors.[27] This information forms the basis for NGTL's demand forecast used for system planning.

34. The contract and forecast demand on the IAS exceed existing system capacity which will create a delivery capacity shortfall beginning in Q4 2027, when certain delivery contracts will take effect. This capacity shortfall would be addressed by the Yellowhead Mainline. Table 1 summarizes the demand makeup of the Yellowhead Mainline capacity:

Table 1. Contracted and forecast demand for the Yellowhead Mainline Project in TJ/day[28]

FT-D contracts	**800**	**Total FT-D Contracts -Signed 2023**
	300	FT-D Contracts – Greater Edmonton Area
	500	FT-D Contracts – Other Areas
Forecast demand	**550**	**Total System Forecast**
	270	Forecast – Greater Edmonton Area
	280	Forecast – Other Area
Total Forecast	**1350**	**Total Incremental Demand**

35. The Yellowhead Mainline would form part of the IAS and provide additional capacity to meet 1,350 TJ/day of demand on the IAS. The Yellowhead Mainline would have the capacity to transport approximately 1,135 TJ/day.[29] In addition to providing incremental capacity to meet demand, the Yellowhead Mainline would also provide a new flow path for natural gas from the predominate supply on the west side of the province, in the Peace River Project Area.[30]

36. As discussed below, the Commissions is satisfied that the Yellowhead Mainline is not a direct supply line that moves natural gas from one point on the pipeline to another point on the pipeline. Instead, the record shows there is increased demand across the IAS that requires the addition of pipeline facilities. As described in this section, ATCO Pipelines has demonstrated

[26] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 70.
[27] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 70.
[28] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 17, Table 3.1.
[29] See paragraph 41.
[30] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 17, paragraph 36; Exhibit 29318-X0067, ATCO Pipelines Yellowhead Mainline Rebuttal Evidence, PDF page 15, paragraph 48; PDF pages 18-19, paragraphs 53-54.

that the need to expand the IAS is supported by 1,125 TJ/day of executed delivery contracts and additional forecast demand growth.

4.1 Is there adequate natural gas demand underpinning the need to expand the IAS?

37. The need to expand the IAS was initially triggered by approximately 800 TJ/day of incremental contracted FT-D service. In addition to those contracts, NGTL estimated that there was approximately 550 TJ/day of incremental demand forecast expected on the IAS by 2030. At the time the application was filed, this incremental contracted and forecast demand supported the proposed expansion to serve an additional 1,350 TJ/day of total incremental demand on the IAS.

38. Of the total expected demand on the system, approximately:

- 300 TJ/day of contract demand and 270 TJ/day of forecast demand were for service in the greater Edmonton area; and
- 500 TJ/day of contract demand and 280 TJ/day of forecast demand were for service on other areas of the IAS.

39. NGTL forecast the delivery volume flow rates for the North and East Project Area, including the greater Edmonton area, to increase from 4.4 billion cubic feet per day (BCF/day) in 2023/2024 to 5.1 BCF/day in 2029/2030. Delivery volume flow rates for the Peace River Project Area and Mainline Project Area were expected to stay relatively flat for the same forecast period. The table below highlights NGTL's six-year system average delivery forecast for the three project areas:

Table 2. Intra system deliveries: average annual delivery forecast by project area[31]

Project Area	2023 Design Forecast (Bcf/d)						
	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Peace River	0.5	0.4	0.4	0.4	0.4	0.4	0.5
North and East	4.4	4.4	4.5	4.6	4.8	4.9	5.1
Mainline	1.8	1.8	1.8	1.8	1.8	1.8	1.9
Total*	6.7	6.6	6.7	6.8	7.0	7.2	7.4
* Fuel is included							

40. Currently, natural gas is supplied to the greater Edmonton area, as part of the North and East Project Area, through various ATCO Pipelines systems and interconnections with the NGTL system. The capacity of the existing pipeline infrastructure in the greater Edmonton area is forecast to reach a shortfall by Q4 2027.[32] The greater Edmonton area design chart included in the Annual Plan and copied in this decision as Figure 3 shows the capacity shortfalls in the greater Edmonton area over time, without the Yellowhead Mainline.

[31] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 72, Table 1-2.

[32] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 18, paragraph 38.

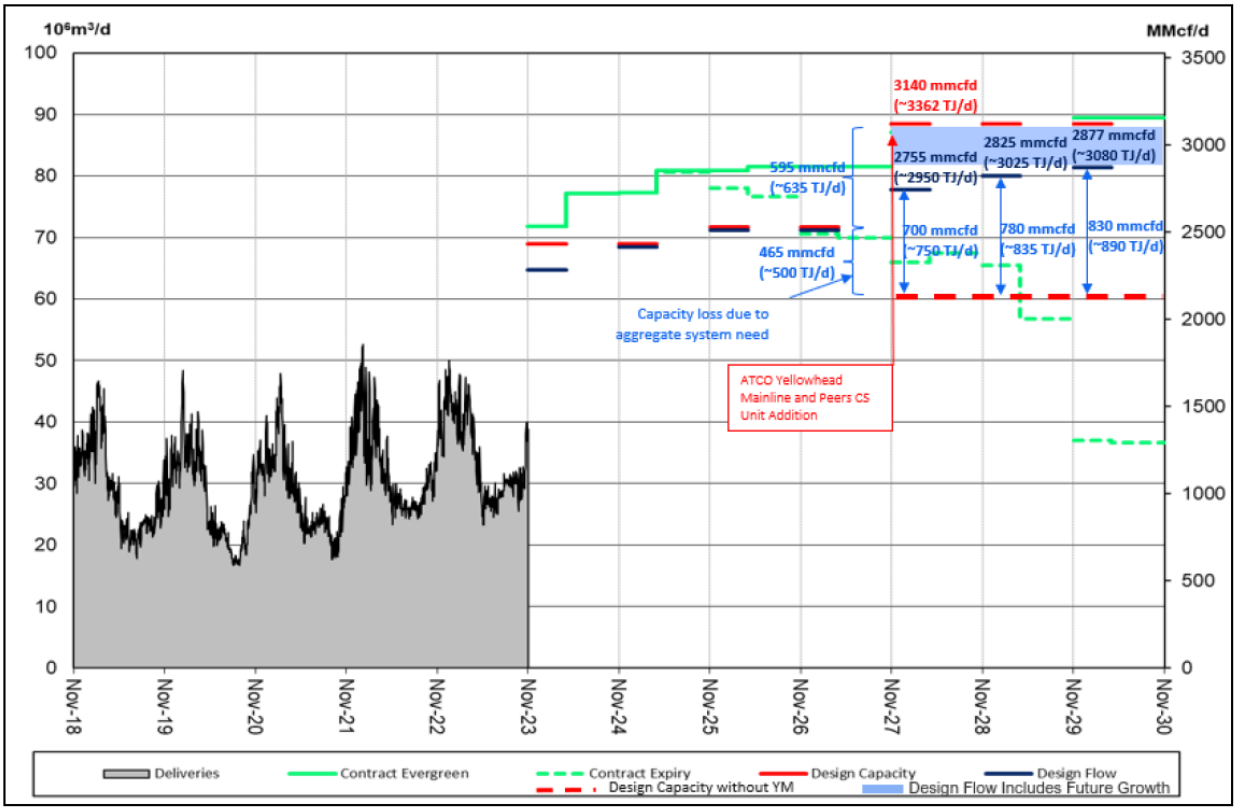

Figure 3. Greater Edmonton area design chart from 2023 Annual Plan[33]

41. Figure 3 indicates that the reallocation of 500 TJ/day[34] of capacity for system optimization, in conjunction with the increasing design flows projected for the greater Edmonton area, result in a capacity shortfall increasing from approximately 750 TJ/day in November 2027, to 835 TJ/day in 2028, and then to 890 TJ/day in 2029. Figure 3 also indicates that the design capacity in the greater Edmonton area would increase by 1,135 TJ/day[35] with the addition of the Yellowhead Mainline.

42. After the need application was filed, an additional 325 TJ/day of the total system forecast demand of 550 TJ/day was contracted. Specifically, 160 TJ/day of natural gas service was contracted for export as part of the Eastern Gate Export Open Season[36] and 165 TJ/day of natural gas service was contracted through TC Energy's 2028 Initial Service Offering and General Service Offering.[37] ATCO Pipelines confirmed that 44.7 TJ/day of this 165-TJ/day additional contracted service was signed for by ATCO Gas to support the growing need of its customers in the greater Edmonton area.[38]

33 Exhibit 29318-X0067, ATCO Pipelines Yellowhead Mainline Rebuttal Evidence, PDF page 16, Figure 3.1.
34 The reutilization of 500 TJ/day of greater Edmonton area capacity elsewhere on the system is highlighted by the step down to approximately 60 10^6m^3/day in November 2027, as represented by the "Design Capacity without YM" dashed red line.
35 1,135 TJ/day is the sum of the 635 TJ/day and 500 TJ/day shown with blue parentheses on Figure 3.
36 Exhibit 29318-X0034, AP Round 1 IR Responses to AUC, PDF page 61, ATCO-AUC-2024NOV26-008(f).
37 Exhibit 29318-X0077, 2025-03-20 AP Letter Enclosing Evidence Update.
38 Exhibit 29318-X0082, AP Round 3 IR Responses to UCA, PDF page 3.

43. As a result, there is a total of 1,125 TJ/day[39] of incremental FT-D contracts underpinning the Yellowhead Mainline, for delivery in the greater Edmonton area and to other areas of demand on the IAS. The term of the executed contracts is 15 years. Customers are not permitted to cancel these contracts and will pay for capacity at the start of the contract term.[40]

44. The CCA, UCA and WEG each raised concerns about whether ATCO Pipelines had adequately demonstrated the demand driving the proposed capacity of the Yellowhead Mainline facilities. Ultimately, these concerns relate to the costs of the Yellowhead Mainline, particularly if the facilities are overbuilt or underutilized, which is discussed further in Section 4.3.

45. The CCA did not dispute that an additional pipeline is required to deliver natural gas to meet the immediate and forecast demand in the industrial area east of Edmonton.[41] However, the CCA was concerned that there would be excess capacity on the proposed facilities. The CCA recommended modifying the proposed project to address the issue of excess capacity on the Yellowhead Mainline. These recommendations are discussed in Section 5, where the Commission assesses the alternatives that ATCO Pipelines considered to meet the need.

46. The CCA noted that only 300 TJ/day[42] of the incremental contracted demand is located within the ATCO Pipelines footprint and questioned whether this incremental demand could be served by a different alternative.[43] In the CCA's view, the Yellowhead Mainline, as proposed, is a "single source direct bullet supply pipeline" to the Heartland industrial area to serve additional industrial and generation loads, rather than a system asset designed to benefit all IAS customers.

47. The CCA also raised a discrepancy between the NGTL and ATCO Pipelines demand forecast and the Alberta Energy Regulator (AER) demand forecast. The NGTL and ATCO Pipelines forecast showed an increase in combined residential and commercial demand and the AER forecast considered these two sectors separately and showed the demand remaining relatively flat. The CCA stated that further analysis of local distribution company (FT-D3) growth, and greater transparency and justification for the project, is required.[44]

48. In response to the CCA, ATCO Pipelines explained that the proposed Yellowhead Mainline is not a direct supply line to the Heartland industrial area. ATCO Pipelines indicated that the ATCO system is highly interconnected with the NGTL system, and it is not feasible for the Yellowhead Mainline or other system assets to be isolated and operated independently from the IAS.[45] Instead, the Yellowhead Mainline would benefit the system by providing additional delivery capacity and allowing incremental natural gas receipt contracts on the IAS.[46]

---

39 1,125 TJ/day is the sum of 800 TJ/day, 160 TJ/day and 165 TJ/day.

40 Exhibit 29318-X0034, AP Round 1 IR Responses to AUC, PDF page 71, ATCO-AUC-2024NOV26-010(e); Exhibit 29318-X0034, AP Round 1 IR Responses to AUC, PDF page 82, ATCO-AUC-2024NOV26-004(a), Attachment 1, Section 5.5; Exhibit 29318-X0095, AP Round 2 IR Response to AUC, PDF page 3.

41 Transcript, Volume 1, page 97, lines 9-13.

42 Exhibit 29318-X0058, CCA Evidence AP YHML Needs, PDF page 9. The incremental contracted demand in the greater Edmonton area at the time the CCA's evidence was filed was 300 TJ/day.

43 Transcript, Volume 1, page 86, lines 22-25; Exhibit 29318-X0058, CCA Evidence AP YHML Needs, paragraph 17, PDF page 11. Note that the CCA's evidence was filed before the additional 44.7 TJ/day was contracted for the greater Edmonton area.

44 Transcript, Volume 1, page 88, lines 17-25, to page 89, lines 1-5; Transcript, Volume 2, page 258, lines 6-13.

45 Exhibit 29318-X0067, ATCO Pipelines Yellowhead Mainline Rebuttal Evidence, PDF page 13, paragraph 40.

46 Exhibit 29318-X0067, ATCO Pipelines Yellowhead Mainline Rebuttal Evidence, PDF page 13, paragraph 41.

49. As shown in Figure 3, above, ATCO Pipelines' evidence is that some of the capacity serving the greater Edmonton area is proposed to be reallocated to other areas on the IAS, including the Oil Sands delivery area and the East Gate Border Export, once the Yellowhead Mainline is put into service. ATCO Pipelines explained that reallocating capacity, or changing the flow paths on the system, increases delivery capacity in other areas of the IAS, without further incremental facilities.[47] While the Yellowhead Mainline will provide a flow path for the delivery of gas to the greater Edmonton area, the Commission accepts that it was not designed to provide point-to-point service, but to add capacity to the overall system. The Commission finds that the purpose of the Yellowhead Mainline is to increase the capacity of the IAS as a whole.

50. While ATCO Pipelines agreed that a smaller solution to address FT-D3 demand in the greater Edmonton area was possible, this would require further future incremental builds, resulting in higher costs.[48] The rationale for selecting the Yellowhead Mainline to serve the incremental system demand underpinning the need application is discussed further in Section 5.

51. The UCA raised concerns about whether the (as originally filed) 800 TJ/day of contracted demand underpinning the Yellowhead Mainline would materialize as this contracted demand was taken up by existing system customers that currently hold service on the IAS.[49] The UCA questioned whether the 800 TJ/day of contracted service was truly incremental demand or whether it resulted from reallocating existing demand from other parts of the IAS.[50]

52. Like the CCA, the UCA also questioned the reliability of ATCO Pipelines' and NGTL's demand forecasts, including whether the evidence on the record sufficiently established that the level of forecast demand would materialize. The UCA was concerned that ATCO Pipelines relied on information from NGTL, stating that there is little quantitative or qualitative information about how the forecast was developed. The UCA also noted a lack of sensitivity analysis for the demand forecast, including not accounting for how slowed provincial demand growth and initiatives such as decarbonization would impact the Yellowhead Mainline.[51]

53. Regarding the UCA's specific concerns, ATCO Pipelines' evidence was that the 800 TJ/day of contracted demand service at the time of application were incremental volumes over and above the existing contracted volumes on the IAS.[52] ATCO Pipelines acknowledged that there is inherent uncertainty in any forecast. However, designing and building facilities to meet forecast long-term demand is more likely to provide the lowest cost of service, rather than designing facilities to meet shorter term needs.[53]

47 Exhibit 29318-X0067, ATCO Pipelines Yellowhead Mainline Rebuttal Evidence, PDF page 18, paragraph 54.
48 Transcript, Volume 2, page 275, lines 18-25; page 276, lines 1-10.
49 Transcript, Volume 1, page 153, lines 21-24.
50 Transcript, Volume 1, page 153, lines 24 and 25 to page 154, lines 1-7.
51 Transcript, Volume 1, page 156, lines 5-12; page 157, lines 1-6.
52 Exhibit 29318-X0052, PDF page 17, Response to AUC IR 4(b); Transcript, Volume 1, page 21, lines 21-24.
53 Transcript, Volume 2, page 270, lines 24-25; page 271, lines 1-3.

54. In its oral argument, WEG asked the Commission to consider and address that the project is only underpinned by 960 TJ/day[54] of executed contracts. WEG stated that it understood the need to build more capacity, over and above contracted demand, but requested that the Commission reassess or verify the need when considering any facility applications for the Yellowhead Mainline.[55] In WEG's view, there is no visibility of the overall aggregate system supply and demand balance used to justify the forecast demand, and the project faced significant cost uncertainty.[56]

55. In response to questions from the Commission, ATCO Pipelines acknowledged that need may be reconsidered if there is a material change in circumstances. However, ATCO Pipelines argued that there is no need to condition the need approval or to require further evaluation of need down the road, as that would not provide the regulatory certainty needed to move ahead with long-lead items.[57]

56. The Commission finds that ATCO Pipelines has established the need to expand capacity on the IAS. The Commission considers that a significant portion of the incremental system capacity that would be provided by the Yellowhead Mainline is taken up by incremental firm contracted demand. Over the course of the proceeding, the contracted demand underpinning the project increased from 800 TJ/day to 1,125 TJ/day, leaving an incremental 225 TJ/day of capacity on the IAS from the Yellowhead Mainline that can be contracted for service in the future. The contracts underpinning the Yellowhead Mainline have a term of 15 years. Customers are not permitted to cancel these contracts and will pay for capacity at the start of the contract term.[58]

57. In addition to the incremental firm contracted demand, forecast demand also supports the need for capacity on the IAS. The Commission accepts that natural gas demand is projected to increase over the next six years in the province, particularly in the North and East Project Area. The Commission acknowledges that there is inherent uncertainty and risk with relying on forecasts when assessing the need for pipeline facilities. However, the risks associated with relying on forecast demand for this project are mitigated by the significant contractual volumes underpinning the need for the Yellowhead Mainline relative to the remaining forecast demand.

58. The Commission also accepts that using the long-term demand forecast in this case would likely provide the lowest cost of service to customers, while reducing smaller incremental builds that may be required if ATCO Pipelines' proposed Yellowhead Mainline addressed only the more immediate contract demand. Additionally, if there is a material change in circumstances, the Commission may reconsider need as required.

---

[54] The Yellowhead Mainline was originally underpinned by 800 TJ/day of contracted demand. This number grew to 960 TJ/day when an additional 160 TJ/day of demand was contracted in the NGTL Empress and McNeill Borders FT-D Expansion Capacity Open Season (August 18, 2025, to September 2, 2025). Following oral argument, ATCO Pipelines notified the Commission that an additional 165 TJ/day of delivery capacity was contracted.

[55] Transcript, Volume 1, page 187, lines 12-21; page 188, lines 11-14.

[56] Transcript, Volume 1, page 188, lines 7-11.

[57] Transcript, Volume 2, page 282, lines 13-22.

[58] Exhibit 29318-X0034, ATCO-AUC-2024NOV26-010(e), PDF 71; Exhibit 29318-X0034, ATCO-AUC-2024NOV26-004(a) Attachment 1, PDF page 82, Section 5.5; Exhibit 29318-X0095, AP Round 2 IR Response to AUC, PDF page 3.

4.2 Would the Yellowhead Mainline allow available supply to be connected the IAS?

59. The Peace River Project Area was identified as a significant source of supply for the IAS. NGTL forecast that the Peace River Project Area would represent an increasing share of aggregate system supply at approximately 93 per cent by 2030.[59] NGTL indicated that this is in part due to the decline of conventional production in other supply areas. ATCO Pipelines proposed that the Yellowhead Mainline would provide a direct and efficient path for the Peace River Project Area supply system to meet demands in the greater Edmonton area.[60]

60. NGTL forecast an increase to the receipt (supply) volume flow rates for the Peace River Project Area on the IAS from 12.3 BCF/day in 2023/2024 to 14.1 BCF/day in 2029/2030. On the other hand, forecast receipt volume flow rates for the North and East Project Area and Mainline Project Area are expected to stay relatively flat for the same period. Overall, NGTL forecasts that the receipt volume flow rates across the province will increase from 13.9 BCF/day in 2023/2024 to 15.2 BCF/day in 2029/2030. Table 3 shows NGTL's six-year system average receipt forecast for the three project areas.

Table 3. NGTL system receipt forecast for 2023 to 2030[61]

Project Area	2023 Design Forecast (Bcf/d)						
	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Peace River	12.3	12.5	12.6	13.0	13.5	13.8	14.1
North and East	0.3	0.4	0.4	0.4	0.4	0.4	0.4
Mainline	1.2	1.1	1.0	0.9	0.8	0.8	0.7
Total	13.9	14.0	14.0	14.2	14.7	15.0	15.2

61. The Commission accepts that receipts from the Peace River Project Area onto the IAS are projected to increase steadily over the next six years.

62. In argument, the CCA questioned whether the Peace River Project Area natural gas would be available or cost-effective for the greater Edmonton area,[62] and suggested that natural gas from the Peace River Project Area may be better suited for export markets rather than domestic consumption, which would contribute to underutilization on the Yellowhead Mainline. The CCA stated that ATCO Pipelines did not provide evidence that the Peace River Project Area natural gas had been contractually secured by customers at a price that supports the commercial viability of their ventures.[63]

63. The Commission finds that it is not necessary for ATCO Pipelines to demonstrate the direct linkage between receipt and demand contracts as this is not consistent with how service is offered on the IAS. Delivery shippers source natural gas through the NOVA Inventory Transfer market hub. As a result, the receipt volumes from the Peace River Project Area are not directly linked to any specific demand market or customer. The Commission is satisfied that the

[59] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 81.
[60] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 22, paragraph 50.
[61] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 76, Table 1-5.
[62] Transcript, Volume 1, page 76, lines 22-25.
[63] Transcript, Volume 1, page 77, lines 6-9.

Yellowhead Mainline would provide additional capacity to the system to allow incremental natural gas receipt contracts on the IAS from the supply-rich Peace River Project Area.

4.3 For the purpose of demonstrating need, has ATCO Pipelines adequately addressed risks associated with underutilization in the long term?

64. As explained above, the Commission finds that ATCO Pipelines has demonstrated that there is adequate demand underpinning the need for the Yellowhead Mainline beginning in 2027.

65. However, as noted by interveners, because the expected life of the physical pipeline assets exceeds the duration of the executed contracts and available forecasts, there is a possibility that the need for the service provided by the Yellowhead Mainline would not be sustained throughout the life of the pipeline.

66. The interveners argued that this creates a significant risk that remaining utility ratepayers would become liable for sunk costs. While the parties generally referred to this as "stranded asset" risk, the Commission understands that the CCA and UCA's concerns relate broadly to a variety of situations in which end-use customers of natural gas distribution utilities may become responsible for a disproportionate share of sunk costs for the Yellowhead Mainline in the future. This could arise should the contracts executed by industrial customers not be renewed, or forecast growth not materialize, but the CCA also identified the risk of the Yellowhead Mainline becoming a stranded asset for other reasons including the termination or alteration of the Integration Agreement.

67. The CCA and UCA argued that liability for sunk costs would fall disproportionately on end-use customers of distribution utilities, which both intervener groups described as being captive to the natural gas transmission system. The CCA suggested that this inequity is exacerbated because the Yellowhead Mainline represents a substantial increase in ATCO Pipelines' rate base that has not been driven primarily by sustainable residential growth. Regarding the magnitude of the risk, the CCA noted that, assuming straight-line depreciation, as much as 75 per cent of the project costs, or $1.9 billion, would remain in rate base at the end of the 15-year contract term.[64]

68. ATCO Pipelines argued that stranded asset risk should be considered in the broader context of the overall system. The Yellowhead Mainline would add approximately 226 kilometres to the ATCO Pipelines network of more than 9,000 kilometres of pipeline, which itself forms a portion of the broader IAS. In ATCO Pipelines' view, forecast risk and de-contracting risk are system risks, and are not unique to the Yellowhead Mainline. On this basis, ATCO Pipelines suggested that the appropriate forum for assessing risk associated with long-term natural gas demand is a generic cost of capital (GCOC) proceeding.[65]

69. The CCA and UCA disputed that a future GCOC proceeding is an appropriate or effective forum for addressing risks from a customer standpoint and maintained that stranded asset risk should be dealt with in the current proceeding, either by denying or conditioning the application.[66]

[64] Transcript, Volume 1, page 79, lines 9-16.
[65] Transcript, Volume 1, page 39, lines 3-21.
[66] Transcript, Volume 2, page 236, lines 7-25; page 255, lines 17-25.

70. The Commission does not consider that deferring consideration of stranded asset risk, or underutilization risk, to a future GCOC is appropriate. A GCOC assesses business risk, for the purpose of determining an appropriate capital structure (debt/equity ratio) on invested capital in assets already in service or where construction is in progress. Expected utilization of a proposed asset must be considered when assessing the need for a new pipeline.

71. For the purpose of the need application, the Commission considers that ATCO Pipelines has adequately addressed the risk of asset stranding or long-term underutilization. The Commission finds that the Yellowhead Mainline would be used at reasonable levels at the time it is put into service. The Commission also finds that ATCO Pipelines and NGTL have taken reasonable measures to substantiate the need over time. In particular, the Commission accepts that the 15-year duration of the executed contracts for incremental demand represents a typical term for a natural gas delivery pipeline, and exceeds the minimum eight-year term that NGTL is required to seek pursuant to its approved tariff.

72. The Commission also considers it relevant that ATCO Pipelines and NGTL undertake regular system optimization studies. The Commission expects that through this optimization review, in the event of a decline in demand, ATCO Pipelines and NGTL would take measures to reduce the likelihood of the Yellowhead Mainline becoming stranded or significantly underutilized. This could include, for example, retiring other end-of-life assets instead of seeking to incur costs to replace those assets.

73. The Commission agrees with ATCO Pipelines that the CCA's concerns about the potential dissolution of the Integration Agreement are speculative, and that this prospect is not substantiated by any evidence on the record.

74. The Commission acknowledges that the Yellowhead Mainline is a large capital project that requires significant investment and that there is some inherent risk of stranding or underutilization of any capital asset with a long-expected service life. The evidence on the record has established continued utilization (or payment in the absence of such utilization) for at least 15 years for a large portion of the incremental capacity, which in the view of the Commission supports the additional capacity to the IAS. This risk of a long-term asset being stranded should be mitigated to the extent possible, but must also be balanced against the higher costs, and increase in tolls, that would result if assets were incrementally built to meet established, short-term demand.[67]

75. The interveners suggested that the current economic and political environment is particularly volatile, and that this may result in volatility in demand for the Yellowhead Mainline. However, the Commission accepts that the need for the Yellowhead Mainline is not contingent on any particular policy or legislative development. In this regard, ATCO Pipelines confirmed that the Government of Alberta's decision to freeze the industrial carbon price at the current rate of $95 per tonne of emissions does not alter the fundamental drivers behind the natural gas demand forecast on the IAS and is not expected to affect the economic viability and need for the Yellowhead Mainline.[68]

[67] Transcript, Volume 1, page 121.
[68] Exhibit 29318-X0095, AP Round 3 IR Response to AUC, PDF page 2.

76. ATCO Pipelines confirmed that neither the contracts underpinning the Yellowhead Mainline, nor the NGTL system tariff, contain force majeure provisions that excuse non-performance by customers in the event of changes to government policy or legislation.[69] ATCO Pipelines also confirmed that NGTL has historically experienced high delivery contract renewal rates on the IAS, with an average delivery contract volume renewal rate of approximately 98 per cent and 94 per cent over the past two and five years, respectively. These existing delivery contracts that have historically experienced a high renewal rate do not directly underpin the demand for the Yellowhead Mainline. However, it does provide some indication of overall utilization of the aggregate system.[70]

77. Finally, the Commission considers it relevant that a diversified range of customer projects and developments support the need for the Yellowhead Mainline, including residential and commercial developments, oil sands development, electricity generation projects and other industrial uses.

78. As stated above, in approving the need application, the Commission is not determining that all costs associated with the Yellowhead Mainline would enter the ATCO Pipelines rate base. It is also not determining that the costs that are ultimately approved to enter the ATCO Pipelines rate base will necessarily remain in rate base until fully recovered. The Commission retains discretion to determine what costs belong in a utility's rate base. If sustainable demand fails to materialize, or other circumstances contribute to significant underutilization of the Yellowhead Mainline in the future, then the Commission can determine a just and reasonable treatment of undepreciated capital costs, for depreciation purposes or otherwise, based on the particular facts and circumstances before it at the time.

5 Is the Yellowhead Mainline the best solution to address the identified need?

79. ATCO Pipelines and NGTL considered four alternatives to address the capacity shortfall expected in the greater Edmonton area. The alternatives included a do-nothing scenario (Alternative 1), expanding existing major flow corridors (alternatives 2 and 3) and developing a new flow corridor (Alternative 4). Of the alternatives considered, ATCO Pipelines and NGTL deemed Alternative 2 and Alternative 4 viable. Therefore, alternatives 2 and 4 were assessed from both technical and economic perspectives to identify the optimal solution for meeting the required design flows.

5.1 What were the possible solutions that ATCO Pipelines considered?

80. ATCO Pipelines determined that Alternative 4, adding a new flow corridor, is the best option to meet demand. It referred to this new flow corridor as the Yellowhead Mainline, and identified three potential configurations for it. The need application seeks approval of the configuration identified as Alternative 4.3.

[69] Exhibit 29318-X0099, 2025-05-28 AP Supplemental Reply Argument, PDF pages 2-3, paragraph 4.
[70] Exhibit 29318-X0034, AP Round 2 IR Responses to AUC, PDF pages 60-61; Transcript, Volume 1, page 41, lines 8-12.

81. A map showing the proposed Yellowhead Mainline and alternatives 2 and 3 is shown in Figure 4:

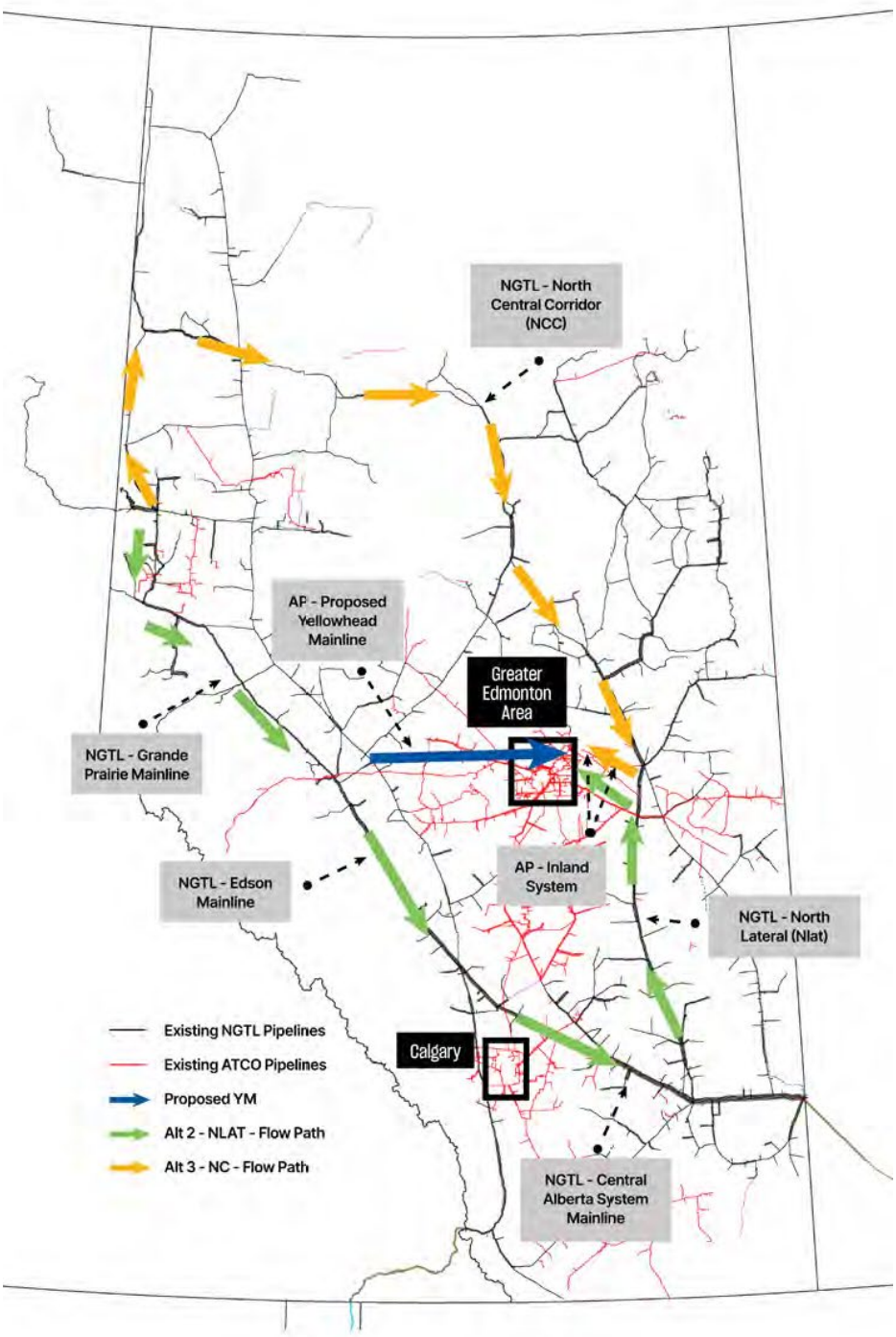

Figure 4. Flow paths of alternatives considered[71]

[71] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, Figure 6.1, PDF page 25.

Alternative 1: Do nothing

82. The first alternative considered was to do nothing or maintain the status quo. ATCO Pipelines determined that Alternative 1 was not viable because, by 2027, the existing IAS would not be able to meet contracted natural gas demand.

Alternatives 2 and 3: Expand existing gas flow corridors

83. The two alternatives identified to expand the existing flow corridors included expanding the NGTL North Lateral (NLAT) system and ATCO Pipelines Inland system (Alternative 2, shown by the green arrows above) or expanding the North Central Corridor and ATCO Pipelines Inland system (Alternative 3, shown by the yellow arrows above). ATCO Pipelines stated that historically, the most cost-effective way to add smaller increments of capacity to the greater Edmonton area was through segmented projects on the ATCO Pipelines Inland system flow path. However, in this case, large-scale upgrades would be required for the existing ATCO Pipelines Inland system to have sufficient capacity to meet aggregate system need.[72]

84. According to ATCO Pipelines, Alternative 3, which would require more larger-diameter pipe compared to Alternative 2, would be less cost-effective than Alternative 2.[73] Accordingly, ATCO Pipelines concluded that Alternative 3 was not a viable solution relative to Alternative 2 and did not assess Alternative 3 further from an economic or technical perspective.

Alternative 4: Add a new gas flow corridor

85. ATCO Pipelines proposed the Yellowhead Mainline, with three potential configurations (identified as alternatives 4.1, 4.2 and 4.3), as the new flow corridor to meet the contracted demand. ATCO Pipelines considered all three configurations of Alternative 4 to be viable solutions to meet the demand on the IAS.

5.2 Which of the alternatives proposed best addresses the identified need?

86. ATCO Pipelines conducted a technical and economic comparison of the viable alternatives (alternatives 2 and 4). Based on this comparison, discussed below, ATCO Pipelines applied for approval of the need for Alternative 4.3 in this application.

5.2.1 Technical considerations

87. Under technical considerations, ATCO Pipelines concluded that all configurations of Alternative 4 were preferable to Alternative 2. It indicated that Alternative 4 provides a shorter and more direct path for the movement of natural gas on the IAS from the supply-rich area in western Alberta to the greater Edmonton area, minimizing the need for compression.[74]

88. The evidence in support of this was that compression requirements have reliability and cost implications. In general, ATCO Pipelines offered that as pipe diameter increases, the compression requirements decrease because less energy is required to move natural gas volumes through the pipeline. However, as flow path distances increase, the compression requirements

[72] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 27, paragraph 63.
[73] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 30, paragraph 65.
[74] Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 33, paragraph 75.

also increase to ensure natural gas volumes can be reliably transported through the pipeline. ATCO Pipelines asserted that a system is more reliable when less compression is required as there is reduced operational complexity, including fewer potential points of failure and lower maintenance requirements.[75]

89. The three configurations of Alternative 4 each had different respective compression[76] requirements due to the differences in pipe diameter proposed. Alternative 2 would require natural gas to be transported over three times the distance, requiring significantly more compression than any of the three other configurations of Alternative 4.[77]

90. ATCO Pipelines also considered the relative land impacts between alternatives 2 and 4. ATCO Pipelines concluded that the relative impacts for any configuration of Alternative 4 are expected to be lower than Alternative 2, as the total length of pipeline required for Alternative 2 is greater. Alternative 2 would also require greater use of Crown land and result in impacts to forested areas. ATCO Pipelines concluded that the relative differences in land impacts across the three configurations for Alternative 4 are expected to be marginal. As previously discussed, the CCA argued that only 300 TJ/day of demand was contracted by end users in the Industrial Heartland area.[78] Based on this, the CCA questioned whether the pipe size and compression proposed for the Yellowhead Mainline were warranted.

91. The CCA suggested that compression is not required as the receipt pressure from NGTL's January Creek transmission line should be sufficient to deliver the 300 TJ/day of contracted service. The CCA argued that the selected pipe size and compression appeared reasonable if 800 TJ/day demand was being contracted in the Industrial Heartland area but was unnecessary at only 300 TJ/day.[79]

92. The UCA shared the CCA's concern and suggested that compression is not required on the Yellowhead Mainline at this time, given the uncertainty surrounding contract renewals and forecast demand.[80] The UCA argued that individual project items, like compression, should be parsed out and evaluated based on whether they are truly needed now, in light of the costs.[81]

93. In response to the CCA, ATCO Pipelines stated that the proposed compression is appropriate for the flow volumes required to serve the contracted and forecast system demand.[82] ATCO Pipelines clarified that the CCA's assumptions to determine receipt point pressure were inaccurate and that looking solely at 300 TJ/day of service was incorrect as the Yellowhead Mainline and its compression requirements are designed to meet aggregate system design flows.[83]

---

75 Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF pages 33-34, paragraphs 75, 76 and 77.

76 Compression increases gas pressure to maintain reliable, long-distance flow within pipeline systems.

77 Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 33, paragraph 75; PDF page 50, paragraph 126.

78 The Commission observes that the CCA variously referred to this 300 TJ/day of contracted demand as being located in the "ATCO Pipelines footprint" and the "Industrial Heartland." The Commission notes that the ATCO Pipelines footprint in the vicinity of Edmonton encompasses a greater geographic area than just the Industrial Heartland.

79 Exhibit 29318-X0058, CCA Evidence AP YHML Needs, PDF page 12, paragraph 21; PDF page 13, paragraph 22.

80 Transcript, Volume 1, page 163, lines 12-21.

81 Transcript, Volume 1, page 165, lines 7-11.

82 Exhibit 29318-X0067, ATCO Pipelines Yellowhead Mainline Rebuttal Evidence, PDF page 20, paragraph 62.

83 Exhibit 29318-X0067, ATCO Pipelines Yellowhead Mainline Rebuttal Evidence, PDF page 19, paragraphs 60-62.

94. In response to the UCA, ATCO Pipelines stated that the Yellowhead Mainline could not meet system requirements without compression, and it would not be reasonable or consistent with ATCO Pipelines' obligation to provide safe and reliable service to build the Yellowhead Mainline without compression and assess later whether it is required. ATCO Pipelines added that applying for and adding in compression retroactively is not a simple or quick process, noting that it is more inefficient, expensive and intrusive.[84]

95. The CCA also suggested that, based on the initial 300 TJ/day service, the Yellowhead Mainline should be connected to the NGTL East system, which the Commission understands is the NGTL NLAT system, so its initial excess capacity could serve oil sands operators.[85] The CCA argued that connecting the Yellowhead Mainline to the NGTL East system would bring an additional 600 TJ/day of service to the oil sands area and potentially reduce future pipeline looping projects on the NGTL East system.[86]

96. In its evidence, ATCO Pipelines stated that a tie into the NGTL NLAT system would require additional facilities beyond the scope of the Yellowhead Mainline. This would ultimately raise costs and would not be supported based on existing contract demand. ATCO Pipelines asserted that the single system design methodology (the holistic assessment of the IAS as presented in the Annual Plan) does not support connecting the Yellowhead Mainline to the NGTL NLAT system.[87]

97. The Commission has considered the proposed alternatives and finds that constructing a new flow corridor, as considered in Alternative 4, would result in the shortest and most direct path for Peace River Project Area natural gas to reach the greater Edmonton area, as part of the IAS.

98. The Commission finds there is no basis for tying the Yellowhead Mainline into the NGTL NLAT system. The Yellowhead Mainline, as proposed, meets the need identified by ATCO Pipelines and there is no justification for the increased scope and cost required to tie the Yellowhead Mainline into the NGTL NLAT system. The Commission considered the compression requirement for the Yellowhead Mainline and accepts that compression is required for the Yellowhead Mainline to operate reliably from the outset and that, based on the design requirements the Yellowhead Mainline is intended to meet, there is no justification for delaying the addition of compression.

99. Within Alternative 4, each of the three configurations is similarly viable from a technical perspective, with minor variations due to differences in pipeline sizing and compression requirements. However, as discussed below, Alternative 4.3 is the most cost effective of these configurations.

5.2.2 Economic considerations

100. As explained above, ATCO Pipelines and NGTL determined that Alternative 2 and Alternative 4 were viable alternatives. ATCO Pipelines conducted an economic analysis of each, considering the forecast capital and annual operations and maintenance costs. ATCO Pipelines concluded that Alternative 4.3 is the lowest cost option among the viable alternatives.

---

84 Transcript, Volume 2, page 278, lines 7-17.
85 Exhibit 29318-X0058, CCA Evidence AP YHML Needs, PDF page 13, paragraph 23.
86 Exhibit 29318-X0058, CCA Evidence AP YHML Needs, PDF page 12, paragraph 20.
87 Exhibit 29318-X0067, ATCO Pipelines Yellowhead Mainline Rebuttal Evidence, PDF pages 17-18, paragraphs 51-53.

101. ATCO Pipelines provided the following forecast capital addition costs of the viable alternatives:[88]

- Alternative 2 (ATCO Pipelines facilities on the ATCO Pipelines Inland system and the NGTL facilities on the NGTL NLAT system) - $3.45 billion
- Alternative 4.1 - $2.74 billion
- Alternative 4.2 - $3.11 billion
- Alternative 4.3 - $2.81 billion

102. The 20-year cumulative present value of revenue requirement (CPVRR) values for the viable alternatives were also provided in the application:[89]

- Alternative 2 - $4.60 billion
- Alternative 4.1 - $2.76 billion
- Alternative 4.2 - $2.67 billion
- Alternative 4.3 - $2.52 billion

103. ATCO Pipelines determined that Alternative 2 had the highest 20-year CPVRR at $4.60 billion, and Alternative 4.3 had the lowest 20-year CPVRR at $2.52 billion. Based on this CPVRR comparison, ATCO Pipelines concluded that Alternative 4.3 is the lowest cost choice among the viable alternatives considered.

104. No intervener disputed that Alternative 4.3 is the lowest cost choice among the viable alternatives identified by ATCO Pipelines, and the Commission accepts ATCO Pipelines' conclusion that Alternative 4.3 is the lowest cost alternative. However, the interveners were concerned about the magnitude of the costs, and the resulting effect on ratepayers. Notably, the Yellowhead Mainline is forecast to increase ATCO Pipelines' rate base by $2.61 billion, which represents an approximate doubling of the existing rate base.[90] The 20-year CPVRR analysis provided in ATCO Pipelines' application suggests that the Yellowhead Mainline is forecast to increase ATCO Pipelines' revenue requirement by approximately $220.7 million in 2028.[91]

105. Interveners also questioned the reliability of ATCO Pipelines' cost forecasts and expressed concern that the final costs may be higher than forecast. Even assuming that cost overruns do not occur, WEG noted that the +/- 30 per cent accuracy range for the overall costs introduces significant uncertainty about the ultimate rate impacts.[92]

106. ATCO Pipelines emphasized that there is no direct correlation between the magnitude of the Yellowhead Mainline costs relative to ATCO Pipelines' existing rate base, and the magnitude of the rate impacts to IAS customers and downstream customers served by distribution utilities. This is because the Yellowhead Mainline forms part of the larger system, and ATCO Pipelines' revenue

88 Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 37, Table 7.7.

89 Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 37, Table 7.7.

90 Exhibit 29318-X0006, Attachment 11 - YM Configuration 3 - 914 mm, Revenue Requirement and Mid Year Plant In Service tab.

91 Exhibit 29318-X0006, Attachment 11 - YM Configuration 3 - 914 mm. The currently approved 2025 ATCO Pipelines revenue requirement is $371.4 million.

92 Transcript, Volume 1, page 189, lines 18-25.

requirement is rolled into NGTL's revenue requirement,[93] which is recovered from all billing determinants on the IAS (allocated as per NGTL's rate design methodology approved by the CER).[94]

107. For context, ATCO Pipelines provided the estimated rate impacts to ATCO Gas customers, which were used as a proxy for gas distribution customers generally. ATCO Pipelines analyzed the potential rate impacts to the average low-use residential consumer serviced through ATCO Gas's tariffs. The ATCO Pipelines 2028 Rider T analysis assumed a growing ATCO Gas customer base, the impact of the Yellowhead Mainline and supporting FT-D3 contracts.[95] ATCO Pipelines concluded that the cumulative potential cost impact of the 2028 Rider T to the average ATCO Gas low-use residential customer is an annual increase over what a customer paid in 2024, ranging from $1.90 (a 1.5 per cent increase) to a maximum of $9.65 annually (a 7.5 per cent increase). The actual cost impact within this range would depend on the amount of customer growth in ATCO Gas's customer rate base.[96]

108. ATCO Pipelines provided the potential 2028 Rider T annual impact, associated with the Yellowhead Mainline alone, in dollars and as a percentage change in the total bill for the average ATCO Gas customer by rate class based on the $2.81 billion cost estimate:[97]

Table 4. Potential Rider T Annual Impact for the Average ATCO Gas Customer with Yellowhead Mainline

Rate Class	2028 Rider T Impact ($)	Change in Total Bill
ATA (35 GJ)	0.29	0.04%
Low Use (105 GJ)	0.88	0.07%
Mid Use (2,700 GJ)	21.42	0.08%
High Use (170 GJ/day)	136.07	0.09%
Ultra-High Use (1,700 JG/day)	1,085.27	0.04%

109. Using the top of the cost estimate range for the Yellowhead Mainline ($2.81 billion plus 30 per cent), the same 2028 Rider T impact analysis yields the following results:[98]

Table 5. Potential Rider T Annual Impact for the Average ATCO Gas Customer with Yellowhead Mainline, Using the Top of the Cost Estimate Range

Rate Class	2028 Rider T Impact ($)	Change in Total Bill
ATA (35 GJ)	1.25	0.19%
Low Use (105 GJ)	3.74	0.28%
Mid Use (2,700 GJ)	91.18	0.36%
High Use (170 GJ/day)	545.83	0.36%
Ultra-High Use (1,700 JG/day)	5,534.06	0.23%

93 Transcript, Volume 1, page 37, lines 2-21.
94 Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF pages 54-55, paragraph 141.
95 Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 58, paragraph 150.
96 Exhibit 29318-X0002, ATCO Pipelines Yellowhead Mainline Need Assessment Application, PDF page 59, paragraph 151.
97 Exhibit 29318-X0034, AP Round 1 IR Responses to AUC, PDF page 15.
98 Exhibit 29318-X0034, AP Round 1 IR Responses to AUC, PDF page 17.

110. ATCO Pipelines clarified that the rate impact analysis above is illustrative and may be subject to change based on the IAS revenue requirement and billing determinants.[99]

111. WEG identified concerns about the lack of information that could be used to assess rate impacts to its members. WEG expressed frustration that, because the rate design methodology for the IAS is not approved by the Commission, it has no ability in the context of this need assessment proceeding to elicit and test information related to the rate impacts WEG members may experience. WEG submitted that this is one example of the procedural challenges that arise from the Integration Agreement, under which two different regulators have responsibility for aspects of the IAS.[100]

112. The Commission accepts ATCO Pipelines' conclusion that Alternative 4.3 is the lowest cost alternative. The total capital costs of Alternative 4.3 are forecast to be approximately $2.81 billion with an accuracy range of +/- 30 per cent.

113. The Commission acknowledges WEG's concerns regarding procedural challenges under the Integration Agreement. However, as explained above, the Commission is not revisiting the Integration Agreement in this proceeding. The Commission and the CER each have separate roles established under the Integration Agreement, and the mechanics of the NGTL rate design are not within the Commission's jurisdiction or the scope of this proceeding.

114. The Commission acknowledges that definitive information about rate impacts of the Yellowhead Mainline cannot be determined at this time. However, the evidence before the Commission is that there is sufficient demand to justify the need for the Yellowhead Mainline, and that Alternative 4.3 is the lowest cost of the viable solutions to serve that demand.

115. With respect to the risk of cost overruns, the CCA noted that similar pipeline projects in North America have experienced cost overruns.[101] In argument, the UCA noted that the total forecast cost of the Yellowhead Mainline has been revised multiple times since it was first introduced in Proceeding 28369.[102]

116. For the purpose of assessing need, the Commission has relied on ATCO Pipelines' representation that the forecast cost is $2.81 billion with an accuracy range of +/- 30 per cent, and that the accuracy range is broadly inclusive of a variety of risks, including geopolitical risks such as the imposition of import tariffs on project materials.[103]

117. The Commission recognizes interveners' concerns related to cost overrun risk. However, the Commission emphasizes that, as recognized by ATCO Pipelines, all costs of the Yellowhead Mainline are subject to Commission oversight, even after approval of the need and facility applications.[104] ATCO Pipelines will be required to confirm the continued accuracy of its cost forecast at the time of filing its facility application, and any potential cost overrun will be scrutinized in future general rate application proceedings.

---

99 Exhibit 29318-X0047, AP Round 1 IR Responses to CCA, PDF page 38.
100 Transcript, Volume 1, page 180, lines 8-19.
101 Exhibit 29318-X0058, CCA Evidence AP YHML Needs, PDF page 20, paragraphs 46-47.
102 Proceeding 28369, ATCO Pipelines 2024-2026 General Rate Application.
103 Transcript, Volume 1, pages 51-52.
104 Exhibit 29318-X0067, ATCO Pipelines rebuttal evidence, paragraph 89, PDF page 28.

6 Decision

118. The Commission finds that ATCO Pipelines has established the need for the Yellowhead Mainline. Pursuant to sections 3.1(2) and 11 of the *Pipeline Act* and Section 4.1 of the *Gas Utilities Act*, the Commission approves the need for the Yellowhead Mainline.

119. The reasons for these findings are set out herein. By way of high-level summary, ATCO Pipelines' evidence supports that:

i. there is adequate demand underpinning the need for the Yellowhead Mainline; 1,125 TJ/day of the 1,350 TJ/day of incremental capacity that the Yellowhead Mainline will add to the IAS will be taken up by firm-transportation contracts for at least 15 years (with further evidence of high contract renewal rates); and the demand forecast continues to increase;

ii. the additional capacity on the IAS provided by the Yellowhead Mainline will allow incremental natural gas receipt contracts from the Peace River Project Area.

120. The Commission further finds that Alternative 4.3 is the best solution to meet the need, from both a technical and economic perspective.

121. The Commission makes no findings on whether the construction and operation of the Yellowhead Mainline facilities to be proposed are in the public interest, having regard to their social and economic effects and effects on the environment. The Commission also makes no findings on whether costs associated with the Yellowhead Mainline are just and reasonable.

Dated on August 21, 2025.

Alberta Utilities Commission

(original signed by)

Kristi Sebalj
Vice-Chair

(original signed by)

Vera Slawinski
Commission Member

(original signed by)

Michael Arthur
Commission Member

Appendix A – Proceeding participants

Name of organization (abbreviation) **Company name of counsel or representative**
ATCO Gas and Pipelines Ltd. (ATCO Pipelines) S. Assie E. Allison
NGTL GP Ltd., as a general partner on behalf of NGTL Limited Partnership (NGTL) J. Johnson
Office of the Utilities Consumer Advocate (UCA) K. Rutherford C. Auch
Consumers' Coalition of Alberta (CCA) J. Wachowich
Western Export Group (WEG) R. Twyman

Alberta Utilities Commission Commission panel K. Sebalj, Vice-Chair V. Slawinski, Commission Member M. Arthur, Commission Member Commission staff M. Anderson (Commission counsel) C. Graham (Commission counsel) H. Shamji (Lead Application Officer)

Appendix B – Oral argument/reply – registered appearances

Name of organization (abbreviation) **Name of counsel or representative**
ATCO Gas and Pipelines Ltd. (ATCO Pipelines) S. Assie E. Allison
NGTL GP Ltd., as a general partner on behalf of NGTL Limited Partnership (NGTL) J. Johnson
Office of the Utilities Consumer Advocate (UCA) K. Rutherford C. Auch
Consumers' Coalition of Alberta (CCA) J. Wachowich
Western Export Group (WEG) R. Twyman