



**AltaGas Utilities Inc.**

**Bonnyville Gas Supply Project**

**August 28, 2018**

**Alberta Utilities Commission**  
Decision 23713-D01-2018  
AltaGas Utilities Inc.  
Bonnyville Gas Supply Project

Proceeding 23713  
Application 23713-A001

August 28, 2018

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## **1 Decision summary**

1. In this decision, the Alberta Utilities Commission must decide whether it is in the public interest to approve an application by AltaGas Utilities Inc. for
  - a. The need for the Bonnyville Gas Supply Project (the project), which includes a north component and a south component.
  - b. The construction and operation of the north component, which consists of approximately 11.37 kilometres of a new high-pressure natural gas pipeline and a new meter and regulation station.
2. After consideration of the record of the proceeding, and for the reasons outlined in this decision, the Commission finds that approval of the need for the project and the construction and operation of the proposed north component of the project is in the public interest.

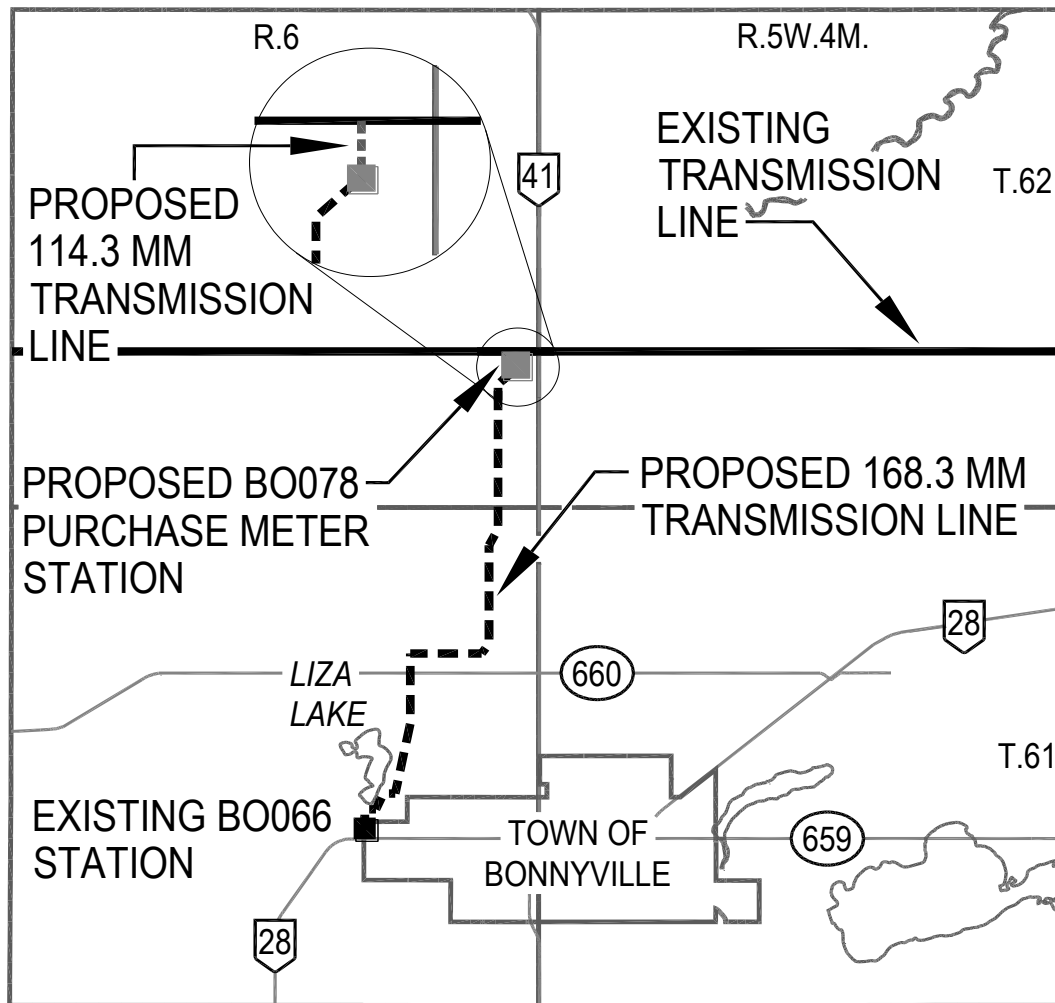
## **2 Introduction**

3. AltaGas Utilities Inc. (AltaGas) filed Application 23713-A001 pursuant to Section 11 of the *Pipeline Act* and Section 4.1 of the *Gas Utilities Act*. AltaGas seeks to add the proposed new pipelines to Licence 22721. The north component of the project consists of the following:
  - addition of a newly constructed pipeline (line 54 – 0.06 kilometres of 114.3-millimetre outside-diameter pipeline)
  - addition of a newly constructed pipeline (line 55 – 11.31 kilometres of 168.3-millimetre outside-diameter pipeline)
  - addition of a purchase meter and regulation station, BO078

## **3 Background**

4. AltaGas explained that the project has two components, a north component and a south component. AltaGas made it clear that Application 23713-A001 is for construction and operation of the north component of the project. AltaGas stated that the application for construction and operation of the south component of the project is expected to be submitted later in 2018. The purpose of the project is to address inadequate pipeline capacity issues in the Bonnyville area.

5. In Application 23713-A001, AltaGas proposes to install approximately 11.31 kilometres of 168.3-millimetre high-pressure sweet natural gas pipeline from the proposed purchase meter and regulation station, BO078, located in Legal Subdivision 15, Section 12, Township 62, Range 6, west of the Fourth Meridian to the existing pressure regulating station, BO066, located in the town of Bonnyville. The proposed purchase meter and regulation station BO078, would tie-in to the existing TransCanada Pipeline Limited (TCPL) Saddle Lake Lateral Pipeline through the proposed 0.06 kilometres of 114.3-millimetre high-pressure sweet natural gas pipeline.
6. The applied-for north component of the project is shown in the figure below.



7. AltaGas stated that the proposed pipelines for both the north and south components of the project have been sized to serve the current and future natural gas demand capacity needs of the AltaGas system.

### 3.1 Project need

8. The need for the project has not been previously established and AltaGas provided a business case for that purpose that assessed four alternatives. Currently, AltaGas supplies natural

gas to over 4,000 customers within the town of Bonnyville and surrounding rural area, as well as hundreds of North East Gas Co-op (NEGC) customers.

9. The business case<sup>1</sup> indicates that the existing source of supply for the town of Bonnyville and surrounding rural area is the TCPL Saddle Lake Lateral Pipeline feeding a single AltaGas station, BO059, that delivers into the AltaGas high pressure system. AltaGas explained that its existing system was designed 25 years ago with a TCPL service contract with a limit of 5,000 GJ/day, however, at peak periods, usage of up to 10,000 GJ/day has been experienced.

10. AltaGas explained that it has been experiencing a steady decline in pressures from TCPL over the last several years, with normal delivery pressures dropping from about 5,000 kPa to 3,500 kPa. AltaGas stated that lower pressures in the TCPL system and its impact on the AltaGas system have hastened the need to address gas supply concerns in the town of Bonnyville and the surrounding rural area.

11. For illustration, AltaGas described an event in December 2017, when a TCPL pressure of 3,975 kPa occurred during extreme cold weather. AltaGas explained that this led to dangerously low pressures of 160 kPa on the high pressure system and almost led to an outage situation affecting the town of Bonnyville. During the same period, a rural distribution area north of Bonnyville serving 99 customers also experienced pressures as low as 80 kPa.

12. AltaGas stated that the project is needed because of the ongoing low supply pressures combined with the growing natural gas demand in the Bonnyville area. Both AltaGas and NEGC have had to limit the addition of new customers due to the impact of low pressures on the TCPL system.

13. AltaGas explained that a large increase in demand is forecast for its system and for NEGC over the next five years. Subsequently, AltaGas expects that both AltaGas and NEGC will have normal, moderate, yearly demand increases. Based on the Alberta Government Population Projection report,<sup>2</sup> the average annual growth in the area is forecasted to range between 0.01 per cent and 0.5 per cent from 2017 to 2041. AltaGas explained that the peak forecast gas demand for each winter season for the Bonnyville region from 2018-2038 is expected to increase as shown in Table 1.

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<sup>1</sup> Exhibit 23713-X0009, 2018 Bonnyville Gas Supply Business Case.

<sup>2</sup> Alberta Government, Treasury Board and Finance Office of Statistics and Information – Demography. (2017). Population Projection: Alberta and Census Divisions, 2017-2041. Alberta: Alberta Government, page 12.

**Table 1 – Forecast Demand for Bonnyville Region**

<b>Winter</b>	<b>Bonnyville Pipeline demand requirement (T J/d)</b>
2017-2018 (current)	9.5
2018-2019	11.0
2019-2020	11.2
2020-2021	11.5
2021-2022	11.7
2022-2023 (5 years)	12.0
2023-2024	12.4
2024-2025	12.5
2025-2026	12.6
2026-2027	12.7
2027-2028	12.8
2028-2029	12.9
2029-2030	13.0
2030-2031	13.1
2031-2032	13.2
2032-2033	13.3
2033-2034	13.4
2034-2035	13.5
2035-2036	13.6
2036-2037	13.7
2037-2038 (20 years)	13.8

### 3.2 Project alternatives

14. To address inadequate pipeline capacity issues and to meet forecast demand requirements in the Bonnyville area, AltaGas considered the four alternatives described below.

#### Alternative 1: Status quo

15. AltaGas concluded that the status quo is not a viable alternative as the ongoing low pressures experienced in the area have reached a critical point that increases the risk for outage situations, especially during the winter heating season. It explained that the declining low pressures have worsened to the point where continued reliable service is no longer possible. In addition, the status quo does not accommodate any potential customer growth. Therefore, AltaGas dismissed this alternative.

#### Alternative 2: New high-pressure pipeline to the south

16. AltaGas investigated an alternative in which a new pipeline would be installed from the AltaGas BO077 station to the AltaGas Ltd. (ALA) Kehiwin compressor site, which is near a TCPL lateral. It stated that Alternative 2 would require a total of 14.3 kilometres of high-pressure pipeline consisting of approximately 12.7 kilometres of high-pressure pipeline to reach the ALA Kehiwin compressor, and 1.6 kilometres to reach the TCPL lateral and a new meter and regulation station.

17. AltaGas did not consider Alternative 2 to be viable because, after investigation, it found that the ALA Kehiwin compressor does not have adequate capacity for the long term demand

requirements. In addition, AltaGas learned that TCPL intends to remove the lateral pipeline in question from service.

**Alternative 3: Install 30 kilometres of high-pressure pipeline to loop portions of the existing high-pressure pipeline**

18. A third alternative considered by AltaGas was to loop selected sections of the existing AltaGas system to address the low pressure and capacity issues. This would include looping from the existing source at the BO059 station, south along the existing high-pressure pipeline, outside the northern boundaries of the town of Bonnyville to the existing BO066 station site. From there, the new pipeline would continue south following the same route as the south portion of the high-pressure steel pipeline under Alternative 4. AltaGas explained that this looping alternative would require approximately 30 kilometres of high-pressure pipe at a total estimated cost of \$10.5 million.

19. AltaGas dismissed Alternative 3 because it is not the most cost effective alternative and would continue to rely only on a single gas source into the AltaGas system. In that respect, AltaGas considered that it would be beneficial to have a dual supply to customers for both routine maintenance and emergency situations.

**Proposed Alternative 4: Secure a new TCPL source and install 16 km of new high-pressure pipeline**

20. For this alternative, AltaGas would secure a new TCPL source of supply, located 12 kilometres west of the existing AltaGas BO059 station, and enter into a firm transportation contract with TCPL to allow for dual-supply in the area. From the TCPL Saddle Lake lateral pipeline, AltaGas would add a new purchase meter and regulation station, BO078, build 15.9 kilometres of high-pressure steel pipeline south to a terminus near the AltaGas BO062 station. The new high-pressure steel pipeline would consist of two pieces, the north and south portions:

- a 11.31 kilometre north portion from the BO078 station and extending south to BO066 station
- a 4.6 kilometre south portion from the BO066 station and extending south to parallel the existing 114.3-millimetre aluminum high pressure pipe near station BO062

21. AltaGas stated that the south portion of the Bonnyville Gas Supply Project is an integral part of the project, as it increases the gas supply to the area southwest of the town of Bonnyville. The north portion would increase the reliability of the system but would not address the pipeline capacity issue south of the BO066 station site for the near future. In the event there is a delay to the south portion of the Bonnyville Gas Supply Project, the growth to the area southwest of the town of Bonnyville would still need to be monitored and restricted, to mitigate service-related concerns in the near term.

22. AltaGas stated that the total estimated cost for Alternative 4 is \$5.38 million.

23. AltaGas also submitted information illustrating how the forecasted Bonnyville area demand would be met with Alternative 4 and Alternative 3, which is shown in Table 2.

**Table 2 – Supply Demand Comparison for Alternative 4 and Alternative 3**

Alternative	Winter	Bonnyville Pipeline demand requirement (T J/d)	Incremental Pipeline Capacity (T J/d)	Capital Cost in each year of expenditure	Total Pipeline System Capacity (T J/d) <sup>3</sup>
Current State	2017-2018 (current)	9.5			10.3
Alternative 4 (North Portion) Secure a new TCPL Source, build new pipelines	2022-2023 (5 years) 2037-2038 (20 years)	11.7 13.8	7.5	\$4.0 million in 2018	17.8
Alternative 4 (South Portion) Build new pipeline	2022-2023 (5 years) 2037-2038 (20 years)	11.7 13.8	0.1	\$1.4 million in 2019	10.4
Alternative 4 (North and South combined) Secure a new TCPL Source, build new pipeline	2022-2023 (5 years) 2037-2038 (20 years)	11.7 13.8	8.8	\$5.4 million in 2018 and 2019	19.1
Alternative 3 – Loop existing system	2022-2023 (5 years) 2037-2038 (20 years)	11.7 13.8	7.4	\$10.5 million	17.7

24. AltaGas estimated the 20-year cumulative present value of revenue requirement to be approximately \$5.8 million for Alternative 4 and \$10.4 million for Alternative 3. AltaGas selected Alternative 4 over Alternative 3 because it would have a lower cumulative present value of revenue requirements in the long-term as well as lower capital expenditures in the short-term.

25. AltaGas also selected Alternative 4 as the preferred alternative option because the proposed system configuration would address the low pressure/capacity issues, ensure a second source of supply into the Bonnyville area, and accommodate growth opportunities for AltaGas and NEGC. AltaGas stated that the new source of supply is proposed to connect into a different pipeline than the existing source of supply on the looped TCPL Saddle Lake lateral, thereby providing some diversity of supply and enhanced reliability.

<sup>3</sup> Capacity is based on pipeline operating at the maximum operating pressure. If AltaGas supplier pressure is low, the pipeline capacities will be reduced. The incremental and total pipeline capacities are based on adding the future load equally throughout system.



## 4 Commission process

26. The Commission issued a notice of application on July 30, 2018. The notice was sent directly to all landowners, occupants and residents along and adjacent to the proposed route, was advertised in the Bonnyville Nouvelle and made available on the AUC website. No submissions were received.

## 5 Environmental assessment for proposed pipeline and purchase meter and regulation station

27. AltaGas retained Aurora Land Consulting Ltd. (Aurora) to complete an environmental protection plan for the project.<sup>4</sup> The report described the current environmental conditions and mitigation measures to reduce potential adverse effects of the project on the environment. The report described pre-project environmental land use as a mix of cultivated land, developed areas, wetlands and undisturbed vegetation.

28. AltaGas proposed to use horizontal directional drilling for water crossings. It stated that the balance of the pipeline would be trenched, with the soil layers separated and returned to their respective topsoil and subsoil layers.

29. Aurora stated that the project area contained no rare vegetation species, no species at risk and no sensitive wildlife mapped habitats. In response to recommendations from an Alberta Environment and Parks senior wildlife biologist, Aurora conducted sharp-tailed grouse and species of concern surveys and neither were encountered during the surveys.<sup>5</sup>

30. Aurora also confirmed that the project area is not listed on Alberta Culture and Tourism's Listing of Historic Resources.

31. AltaGas stated that the north component of the project is planned for construction in the late summer or fall of 2018. Mitigation measures would be put in place during pre-construction and construction, such as topsoil handling, waste disposal and backfilling the trench as soon as practical. A nest survey would be completed prior to any clearing.

32. AltaGas assessed the noise from the proposed project associated with one existing regulation station and one proposed purchase meter and regulation station, respectively. AltaGas provided noise assessment summary forms and stated that noise levels would be in compliance with Rule 012: *Noise Control*.

## 6 Consultation

33. AltaGas indicated that all landowners and occupants along and adjacent to the north component of the project have been provided with written notification of the proposed construction, including a general description of the project. All landowners, occupants and municipalities have given confirmation that they have no objection to the project.

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<sup>4</sup> Exhibit 23713-X0005, Environmental Protection Plan.

<sup>5</sup> Exhibit 23713-X0001, Cover Letter.

## 7 Findings

34. The Commission's Rule 020: *Rules Respecting Gas Utility Pipelines* allows for an applicant to apply for both the need and the facility in a single proceeding. Pursuant to these provisions, a gas utility can seek approval to construct and operate a new gas utility pipeline under the *Pipeline Act* and the *Gas Utilities Act* without prior approval of the associated forecast capital expenditures. In such a case, the Commission considers the need for the project, the alternatives, and the specific routing, all within the facility proceeding, without approving the forecast rate increases necessary to recover the project's costs.

35. In this application, AltaGas is requesting approval of (a) the need for the north and south components of the project, and (b) approval of the construction and operation of the north component of the project specified to meet the need.

36. The Commission accepts the evidence of AltaGas that the project (north and south components) is necessary to avoid a natural gas supply capacity shortfall by the winter of 2018-2019 in the Bonnyville region resulting from a combination of low pressure on the TCPL system and inadequate pipeline capacity to meet the growing natural gas demand as described more fully in tables 1 and 2. Accordingly, the Commission finds that AltaGas has demonstrated that there is a need for the project.

37. The Commission also finds that the proposed Alternative 4 provides an effective technical solution to satisfy the need for system enhancement and an effective means of meeting the long-term demand requirements. With respect to the other alternatives presented, the Commission accepts that the alternative recommended by AltaGas has the lowest forecast cumulative present value cost of service and is operationally preferable to the other options.

38. When deciding whether approval of the project is in the public interest, the Commission is required by Section 17 of the *Alberta Utilities Commission Act* to have regard for the project's social and economic effects and its effects on the environment.

39. The Commission has reviewed the application for the proposed north component of the project and has determined that it meets the information requirements of Rule 020.

40. The Commission accepts that AltaGas conducted a participant involvement program in accordance with Rule 020 for the application in question and finds that the participant involvement was adequate.

41. The Commission finds that the potential environmental impacts of the proposed north portion of the project have been sufficiently addressed in AltaGas's environmental protection plan filed in support of its application. The Commission accepts AltaGas's commitments to implement the specifications presented in the environmental protection plan in order to reduce the risk of potential adverse environmental impacts associated with construction and operation of the north component of the project.

42. The Commission accepts the AltaGas assessment that the noise levels from the existing regulation station and the proposed purchase meter and regulation station will be in compliance with Rule 012.

43. Based on the foregoing, the Commission finds that it is in the public interest to approve: (a) the need for the project, and (b) the construction and operation of the north component of the project, in accordance with Section 17 of the *Alberta Utilities Commission Act*.

## **8 Decision**

44. 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 application and grants AltaGas the amended licence as set out in Appendix 1 – Gas Utility Pipeline – Licence 22721 – August 28, 2018 (Appendix 1 will be distributed separately).

Dated on August 28, 2018.

### **Alberta Utilities Commission**

*(original signed by)*

Neil Jamieson  
Commission Member