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File OF-Fac-Gas-N081-2018-03 02
23 October 2020

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Dear Sirs:

**Hearing Order GH-003-2018
NOVA Gas Transmission Ltd. (NGTL)
Application for the NGTL 2021 System Expansion Project (Project) under
Section 52 and Section 58 of the *National Energy Board Act* (NEB Act)
Certificate of Public Convenience and Necessity GC-129**

Following the issuance of the Canada Energy Regulator Recommendation Report for GH-003-2018 on 19 February 2020, the Commission of the Canada Energy Regulator (Commission) encloses for your records a copy of the Certificate of Public Convenience and Necessity GC-129, in both official languages, which the Governor in Council approved with amendments pursuant to Order in Council P.C. 2020-811 on 19 October 2020 and directed the Commission to issue. The Commission is currently proceeding with the preparation of Order XG-001-2020 and it will be released shortly by way of a separate letter.

The Commission directs NGTL to serve a copy of this letter and Certificate on all interested parties.

Yours sincerely,

Original signed by

Jean-Denis Charlebois
Secretary of the Commission

Attachment

Canada



CERTIFICATE GC-129

IN THE MATTER OF the *National Energy Board Act* (NEB Act) and the regulations made thereunder; and

IN THE MATTER OF an application made by NOVA Gas Transmission Ltd. (NGTL), pursuant to section 52 of the NEB Act, dated 20 June 2018, filed with the National Energy Board (NEB) under File OF-Fac-Gas-N081-2018-03 02.

BEFORE the Commission of the Canada Energy Regulatory (Commission) on 23 October 2020.

WHEREAS NGTL filed an application pursuant to section 52 of the NEB Act, dated 20 June 2018 to construct and operate the NGTL 2021 System Expansion Project (Project);

AND WHEREAS the Project is a designated project as described pursuant to section 2 of the *Canadian Environmental Assessment Act, 2012* (CEAA 2012);

AND WHEREAS the *Canadian Energy Regulator Act* (CER Act) came into force on 28 August 2019 (commencement day) and section 36 of the transitional provisions associated with the CER Act states that applications pending before the NEB immediately before the commencement day are to be taken up before the Commission and continued in accordance with the NEB Act;

AND WHEREAS section 36.1 of the transitional provisions associated with the CER Act states that section 182.1 of the *Impact Assessment Act* (IAA) applies to applications pending before the NEB immediately before the commencement day; and section 182.1 of the IAA states that any environmental assessment of a designated project by the NEB commenced under CEAA 2012, in respect of which a decision statement has not been issued before the day on which the IAA comes into force, being 28 August 2019, is to be continued under CEAA 2012;

AND WHEREAS the Project includes the proposed construction and operation of approximately 344 km of new gas pipelines in eight pipeline section loops, and related facilities in Alberta (Section 52 Pipeline and Related Facilities); in addition to the proposed construction and operation of three compressor station unit additions, a control valve, launcher and receiver facilities, and related infrastructure including tie-ins, and temporary infrastructure required for pipeline construction (Section 58 Facilities and Activities);

AND WHEREAS the Section 52 Pipeline and Related Facilities are fully described in the attached Schedule A;

AND WHEREAS the Project has an estimated cost of approximately \$2.3 billion;

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AND WHEREAS the Commission reviewed NGTL's application and all subsequent evidence and submissions, both written and oral, made by NGTL and the participants in the proceeding, and conducted an environmental assessment of the Project pursuant to CEAA 2012;

AND WHEREAS the Commission held a public hearing in respect of the Project pursuant to Hearing Order GH-003-2018, as amended, during which the Commission heard from NGTL and the participants in the proceeding;

AND WHEREAS the Commission had regard to all considerations that were directly related to the Project and were relevant, including environmental matters, pursuant to Part III and Part VI of the NEB Act;

AND WHEREAS the Commission prepared and submitted to the Minister of Natural Resources the *Canada Energy Regulator Report NOVA Gas Transmission Ltd. 2021 System Expansion Project (Report)* setting out the Commission's recommendation for the Section 52 Pipeline and Related Facilities with its reasons;

AND WHEREAS the Commission concluded that the Project, constructed and operated in full compliance with the terms and conditions recommended by the Commission in Appendices I and III of the Report, and with the implementation of NGTL's environmental protection procedures and mitigation measures, is not likely to cause significant adverse environmental effects;

AND WHEREAS the Commission determined the Project was in the Canadian public interest, and recommended that a Certificate of Public Convenience and Necessity (Certificate) be issued for the construction and operation of the Section 52 Pipeline and Related Facilities;

AND WHEREAS the Commission has issued on this same date, Order XG-001-2020 pursuant to section 58 of the NEB Act, exempting NGTL from the requirements of subsections 31(c), 31(d), and section 33 of the NEB Act in relation to certain temporary infrastructure required for construction of the Project, and exempting NGTL from certain other requirements as specified in the Order;

AND WHEREAS the Governor in Council has issued Order in Council P.C. 2020-811, dated 19 October 2020, approving the Project, setting out its reasons, and considerations, including the implementation of mitigation measures as specified in the Report with respect to the environmental assessment, that the designated Project is not likely to cause significant adverse environmental effects, and the additional and amended conditions it considers necessary; and further directing the Commission to issue Certificate of Public Convenience and Necessity GC-129 for the Section 52 Pipeline and Related Facilities, subject to the terms and conditions contained in Appendix I of the Report;

NOW THEREFORE, pursuant to section 54 of the NEB Act, the Commission hereby issues this Certificate in respect of the Section 52 Pipeline and Related Facilities.

This Certificate is subject to the terms and conditions outlined below.

In this Certificate, the terms and expressions below (in bold) have the following meanings:

Accountable Officer: the accountable officer of NGTL, appointed as Accountable Officer pursuant to section 6.2 of the *National Energy Board Onshore Pipeline Regulations*.

Certificate: Certificate of Public Convenience and Necessity authorizing the construction and operation of the Section 52 Pipeline and Related Facilities, pursuant to section 54 of the NEB Act.

Commencing construction: the clearing of vegetation, ground-breaking and other forms of right-of-way (ROW) preparation that may have an impact on the environment (activities associated with normal surveying do not constitute commencing construction).

For approval: where any condition required a filing with the Commission of the Canada Energy Regulator “for approval” prior to taking an action, NGTL must not commence the indicated action or activity until the Commission issues its approval of that filing.

Include: use of this term, or any variant of it, is not intended to limit the elements to just those listed. Rather, it implies minimum requirements with the potential for augmentation, as appropriate.

Post-construction: activities to take place once construction is complete, following final clean-up through to the completion of reclamation activities; including monitoring to evaluate the success of reclamation activities, compliance with commitments and the stability of disturbed lands.

Conditions

General

1. Condition Compliance

NGTL must comply with all of the conditions contained in this Certificate, unless the Commission otherwise directs.

2. Section 52 Pipeline and Related Facilities Design, Location, Construction and Operation

NGTL must cause the Section 52 Pipeline and Related Facilities to be designed, located, constructed, and operated in accordance with the specifications, standards, commitments made and other information included in its Application or as otherwise agreed to during questioning or in its related submissions.

3. Environmental Protection

NGTL must implement or cause to be implemented all of the policies, practices, programs, mitigation measures, recommendations, procedures and its commitments

for the protection of the environment included in or referred to in its Application or in its related submissions.

Prior to Construction

4. Construction Emergency Management Preparedness and Response Planning

- a) NGTL must file with the Commission **at least 60 days prior to commencing construction**, the Emergency Response Plan, specific to the Section 52 Pipeline and Related Facilities that will be implemented during the construction phase of the Section 52 Pipeline and Related Facilities. The plan must include spill contingency measures that NGTL will employ in response to accidental spills attributable to construction activities, 24-hour medical evacuation, fire response and security.
- b) NGTL must also provide a copy to all Indigenous peoples who have expressed an interest in receiving a copy; and NGTL must, within 7 days of the filing in a), provide confirmation to the Commission that it has provided those copies.

5. Updated Environmental Protection Plan for Section 52 Pipeline and Related Facilities

- a) NGTL must file with the Commission **for approval, at least 60 days prior to commencing construction**, an updated Environmental Protection Plan (EPP) specific to the Section 52 Pipeline and Related Facilities. The updated version of the EPP is to include revisions based on evidence provided during the hearing process. The updated EPP must include, but not be limited to, the following:
 - i) environmental protection procedures (including site-specific plans), criteria for implementing these procedures, mitigation measures and monitoring applicable to all Project phases and activities;
 - ii) any updates to contingency plans and management plans;
 - iii) a description of the condition to which NGTL intends to reclaim and maintain the rights-of-way, once construction has been completed, and a description of measurable goals for reclamation;
 - iv) a list of measures to be taken during construction to minimize disturbance to caribou and caribou habitat and help accelerate habitat restoration, including:
 - a. any provincial and federal best practices, requirements and timing restrictions specifically related to minimizing construction disturbance; and
 - b. the criteria for where those measures will be taken.

- v) all specific mitigation related to species at risk and their habitat, Key Wildlife and Biodiversity Zones, trumpeter swan waterbodies, Grizzly Bear Secondary Areas and Special Access Zones;
 - vi) updated environmental alignment sheets;
 - vii) evidence demonstrating that consultation took place with relevant government authorities, where applicable; and
 - viii) a revision log of the updates made, the reference where the updates can be found in the revised document, as well as the reference from the hearing evidence for each update.
- b) NGTL must also provide a copy to all Indigenous peoples who have expressed an interest in receiving a copy; and NGTL must, within 7 days of the filing in a), provide confirmation to the Commission that it has provided those copies.

6. Revised Caribou Habitat Restoration and Offset Measures Plan (CHR&OMP)

- a) NGTL must file with the Commission **for approval, at least 60 days prior to commencing construction**, a revised version of the CHR&OMP. The updated version of the CHR&OMP is to include revisions based on evidence provided during the hearing process, and a summary of consultation with Indigenous peoples that expressed an interest in being involved with the CHR&OMP during the GH-003-2018 hearing process to confirm that all caribou-specific Indigenous knowledge that has been provided has been reflected. The revised CHR&OMP will include:
- i) a revision log of the updates made, the reference where the updates can be found in the revised document, as well as the reference from the hearing evidence for each update;
 - ii) a summary of caribou-specific Indigenous knowledge, comments and concerns received from Indigenous communities and the reference where the updates can be found in the revised document. In its summary, NGTL must provide a description and justification for how it has incorporated the results of its consultation, including any recommendations from those consulted, into the CHR&OMP; and,
 - iii) a description of offsetting measures that will be taken outside of the Project area and, in addition to the restoration measures along the pipeline, to address the total amount of caribou habitat disturbance of the Project, and, in a manner consistent with the Recovery Strategy for the Woodland Caribou (*Rangifer tarandus caribou*), Boreal population, in Canada. Specifically, NGTL must ensure that it implements an amount of on-the-ground offsetting measures, or equivalent financial contribution to programs managed by the Government of Alberta, for restoration of legacy footprint within the Little Smoky Caribou Range, that will achieve (post-offset) an amount of 3,480 hectares of new, undisturbed habitat as defined in the Recovery Strategy. NGTL must consult with the Government of Alberta in the development of the CHR&OMP.

- b) NGTL must also provide a copy of the revised plan to all Indigenous peoples who have expressed an interest in receiving a copy, and to Environment and Climate Change Canada and to all appropriate provincial authorities; and NGTL must, within 7 days of the filing in a), provide confirmation to the Commission that it has provided those copies.

7. *Wildlife and Rare Plant Surveys*

NGTL must file with the Commission, **at least 60 days prior to commencement of construction**, the following Wildlife and Plant Survey Reports:

- a) yellow rail surveys for the Colt and Dismal Creek pipeline sections;
- b) songbird survey for the Elmworth pipeline section;
- c) common nighthawk surveys for the Colt, Elmworth and Dismal Creek pipeline sections;
- d) nocturnal amphibian surveys for the Colt and Deep Valley pipeline sections; and
- e) late season rare plant survey for the Elmworth pipeline section.

Each of these survey reports must include the survey methodology used, results of the survey and proposed mitigation, as well as a confirmation that the proposed mitigation has been included in the environmental protection plan and the environmental alignment sheets.

8. *Geological hazards*

NGTL must file with the Commission, **at least 60 days prior to commencing construction**, the following reports:

- a) Phase II Geological Hazard Assessment(s). The report(s) must include but not be limited to:
 - i) an assessment of all the geological hazards that the Project crosses along the right of way;
 - ii) the risks associated with the identified hazards; and
 - iii) the mitigation and monitoring methods to control the identified hazards.
- b) Landslide and steep slope assessments for all the areas identified as prone to instability in the Geological Hazard Assessment(s). The landslide and steep slope assessments should include the following:
 - i) a list of all the high hazard locations and the proposed mitigations that NGTL will be implementing during construction to deal with the hazardous conditions at those locations; and

- ii) NGTL's proposed monitoring plans during operation to monitor high hazard locations including a list of the monitoring techniques that NGTL will implement at those locations. Monitoring techniques that the CER will be assessing will include remote continuous slope monitoring methods and similar approaches.

9. Trenchless Crossing Reports

NGTL must file with the Commission, **at least 60 days prior to commencing construction**, the geotechnical investigation reports and final feasibility studies for the following trenchless water crossings:

- a) Smoky River;
- b) Little Smoky River;
- c) McLeod River;
- d) Pembina River; and
- e) North Saskatchewan River.

10. Outstanding Traditional Land and Resource Use Investigations

- a) NGTL must file with the Commission **for approval, at least 45 days prior to commencing construction of the Section 52 Pipeline and Related Facilities**, a report on any outstanding traditional land and resource use investigations for the Project. The report must include, but not be limited to:
 - i) a summary of the status of investigations undertaken for the Project, including Indigenous community-specific studies or planned supplemental surveys;
 - ii) a description of how NGTL has considered and addressed information from any investigations on which it did not report during the GH-003-2018 hearing process;
 - iii) a description of any outstanding concerns raised by potentially-affected Indigenous peoples regarding potential effects of the Project on the current use of lands and resources for traditional purposes, including a description of how these concerns have been or will be addressed by NGTL, or an explanation why these concerns will not be addressed by NGTL;
 - iv) a summary of any outstanding investigations or follow-up activities that will not be completed prior to commencing construction, including an explanation why they are not being completed prior to construction; an estimated completion date, if applicable; and a description of how NGTL has already identified, or will identify, any potentially-affected traditional land and resource use sites or resources if the outstanding investigations will not be completed prior to construction; and
 - v) a description of how NGTL has incorporated any revisions necessitated by the investigations or follow-up activities into the Environmental Protection Plan for the Project, or, if appropriate, into NGTL lifecycle oversight.

- b) NGTL must also provide a copy to all Indigenous peoples who have expressed an interest in receiving a copy; and NGTL must, within 7 days of the filing in a), provide confirmation to the Commission that it has provided those copies.

11. Programs and Manuals – Safety

NGTL must file with the Commission, **at least 30 days prior to commencing construction**, confirmation that a Construction Safety Manual(s) pursuant to section 20 of the *National Energy Board Onshore Pipeline Regulations* is in place for the Project. This confirmation must be signed by the Accountable Officer of the company.

12. Construction Monitoring Plan for Indigenous Peoples

- a) NGTL must file with the Commission, for approval **at least 30 days prior to commencing construction of the Section 52 Pipeline and Related Facilities**, a plan describing participation by Indigenous peoples in monitoring activities during construction. Activities would include monitoring for adverse environmental impacts, heritage resources, areas related to traditional land and resource uses, and areas of cultural significance. The plan must include, but not be limited to:
 - i) a summary of engagement activities (including methods, dates, and locations) undertaken with Indigenous peoples to obtain input into the monitoring plan and to develop opportunities for their participation in monitoring activities;
 - ii) a description of how the results from its engagement with Indigenous peoples were incorporated into the plan, and where suggestions and concerns raised by Indigenous peoples were not incorporated into the plan, an explanation as to why not;
 - iii) a list of Indigenous peoples who were engaged on the plan, and a list of Indigenous peoples who have reached agreement with NGTL to participate as monitors;
 - iv) a description of the anticipated training and participant requirements, including potential certifications;
 - v) the scope, methodology, and justification for monitoring activities to be undertaken by NGTL and each participant identified in a) iii), including those elements of construction and geographic locations that will involve monitors;
 - vi) a description of how NGTL will use the information gathered through the participation of monitors, including whether and how the information gathered can be shared more broadly with interested Indigenous communities, subject to appropriate protections for confidential information; and
 - vii) a description of how and the timeframe in which NGTL will provide the information gathered through the participation of monitors to the participating Indigenous communities.

- b) NGTL must also provide a copy of the plan to all Indigenous peoples who have expressed an interest in receiving a copy and NGTL must, within 7 days of the filing in a), provide confirmation to the Commission that it has provided those copies.

13. Employment, Contracting, and Procurement Plan Update

- a) NGTL must file with the Commission, **at least 30 days prior to commencing construction of the Section 52 Pipeline and Related Facilities**, an update on the employment, contracting and procurement plan that includes:
 - i) a copy of the Prime Contractor's Aboriginal Participation Plan; and
 - ii) a summary of how the Prime Contractor's Aboriginal Participation Plan aligns with NGTL's Aboriginal Contracting and Employment Program.
- b) NGTL must also provide a copy to all Indigenous peoples who have expressed an interest in receiving a copy; and NGTL must, within 7 days of the filing in a), provide confirmation to the Commission that it has provided those copies.

14. Report on Engagement with Indigenous Peoples

- a) NGTL must file with the Commission, for approval, **at least 30 days prior to commencing construction of the Section 52 Pipeline and Related Facilities, and every six months thereafter until completing construction**, a report summarizing NGTL's engagement with all potentially affected Indigenous peoples. These reports must include but not be limited to:
 - i) the methods, dates, and locations of engagement activities, including site visits;
 - ii) a list of Indigenous peoples who have expressed an interest in receiving a copy of filings related to conditions, a list of those filings, and a summary of the discussions NGTL has had with Indigenous peoples regarding capacity to review filings related to conditions. Should Indigenous groups express a requirement for funding to review NGTL's filings related to conditions, NGTL must offer Indigenous groups a reasonable amount of capacity funding to support their review;
 - iii) a summary of the concerns raised by Indigenous peoples;
 - iv) a description of how NGTL has addressed or will address the concerns raised;
 - v) a description of any outstanding concerns; and
 - vi) a description of how NGTL intends to address any outstanding concerns, or an explanation as to why no further steps will be taken.

- b) NGTL must also provide a copy to all Indigenous peoples who have expressed an interest in receiving a copy; and NGTL must, within 7 days of the filing in a), provide confirmation to the Commission that it has provided those copies.

15. Heritage Resource Clearances

- a) NGTL must file with the Commission, **at least 30 days prior to commencing construction of the Section 52 Pipeline and Related Facilities:**
 - i) confirmation, signed by the Accountable Officer of the company, that NGTL has obtained all of the required archaeological and heritage resource clearances from Alberta Ministry of Culture, Multiculturalism and Status of Women;
 - ii) a description of how NGTL will meet conditions and respond to any comments and recommendations contained in the clearances referred to in i); and
 - iii) a description of how NGTL has incorporated additional mitigation measures into its EPP as a result of conditions, comments, or recommendations referred to in ii).
- b) NGTL must also provide a copy of this information to all Indigenous peoples who have expressed an interest in receiving a copy; and NGTL must, within 7 days of the filing in a), provide confirmation to the Commission that it has provided those copies.

16. Commitments Tracking Table

NGTL must:

- a) file with the Commission and post on its Project website, **within 90 days from the date of this Certificate and at least 30 days prior to commencing construction**, a Commitments Tracking Table (CTT) listing all commitments made by NGTL in its application, and otherwise agreed to during questioning or in its submissions in the GH-003-2018 hearing process, including all commitments made to Indigenous peoples, and that includes references to:
 - i) the documentation in which the commitment appears (for example, the Application, responses to information requests, hearing transcripts, permit requirements, condition filings, or other);
 - ii) the accountable lead for implementing each commitment; and
 - iii) the estimated timelines associated with the fulfillment of each commitment.
- b) update the status of the commitments in a) on its Project website and file these updates with the Commission on a:
 - i) monthly basis until commencing operations; and

- ii) quarterly basis until the end of the fifth year following the commencement of operations.
- c) maintain at its construction office(s):
 - i) the CTT listing all regulatory commitments and their completion status, including those commitments resulting from NGTL's Application and subsequent filings and conditions from permits, authorizations and approvals;
 - ii) copies of any permits, approvals or authorizations issued by federal, provincial or other permitting authorities, which include environmental conditions or site-specific mitigation or monitoring measures; and
 - iii) any subsequent variances to permits, approvals or authorizations in c) ii).

17. Emergency Management Continuing Education Program

- a) NGTL must file with the Commission, **at least 30 days prior to commencing construction**, a Project-specific plan (Plan) for the development of a continuing education program for the Project (Program) that would be incorporated into the broader continuing education program required by section 35 of the *National Energy Board Onshore Pipeline Regulations* (SOR/99-294). The Plan must include:
 - i) a list of potentially affected Indigenous communities, first responders (for example, police, fire departments, medical facilities), and any other appropriate organizations, government authorities and agencies (for example, municipalities) that have been identified for consultation and the results of consultation to date;
 - ii) the goals, principles and objectives for consultation for the development of the Program;
 - iii) a description of how information provided by potentially affected Indigenous communities, first responders or any other appropriate organizations, government authorities and agencies will be incorporated into the Program, including a description of NGTL's procedure to communicate to potentially affected parties how their information will be incorporated into the Program and justification for why any information may not have been incorporated into the Program;
 - iv) a description of how Program information would be communicated or distributed to potentially affected Indigenous communities, first responders, and any other appropriate organizations, government authorities and agencies, including how NGTL will address any requests from potentially affected Indigenous communities to have Program information translated into the local Indigenous language; and
 - v) a summary of the information to be included in the Program, including:
 - a. potential emergency situations involving the section 52 Pipeline and Related Facilities;
 - b. the safety procedures to be followed in the case of an emergency;

- c. a description of how NGTL will conduct annual testing of emergency contact information, including with Indigenous communities, and how NGTL will ensure the group being contacted has up-to-date company emergency contact information as well;
 - d. the methods by which potentially affected Indigenous communities, first responders, and any other appropriate organizations, government authorities and agencies can contact NGTL in the case of an emergency situation; and
 - e. the methods by which NGTL can contact potentially affected Indigenous communities, first responders, and any other appropriate organizations, government authorities and agencies in the case of an emergency situation.
- b) NGTL must also provide a copy to all Indigenous peoples who have expressed an interest in receiving a copy; and NGTL must, within 7 days of the filing in a), provide confirmation to the Commission that it has provided those copies.

18. Construction Schedule

- a) NGTL must, **at least 14 days prior to the commencement of construction of the approved Section 52 Pipeline and Related Facilities**, file with the Commission a detailed construction schedule or schedules identifying major construction activities and must notify the Commission of any modifications to the schedule or schedules as they occur.
- b) NGTL must also provide a copy to all Indigenous peoples who have expressed an interest in receiving a copy; and NGTL must, within 7 days of the filing in a), provide confirmation to the Commission that it has provided those copies.

During Construction

19. Construction Progress Reports

NGTL must file with the Commission, **by the 16th day and by the last day of each month during construction**, construction progress reports. The report must include:

- a) information on the activities carried out during the reporting period, any environmental, socio-economic, safety and security issues and issues of non-compliance; and the measures undertaken for the resolution of each issue and non-compliance.
- b) specific details on construction progress within the Little Smoky Caribou Range, and must confirm the extent to which construction is on schedule to complete clearing, pipeline construction, testing, tie-ins, cleanup, etc., prior to the Restricted Activity Period (RAP). Should construction fall behind schedule, the report must identify this at least 15 days in advance of any delays in the schedule, and comply with the requirements of Condition 23.

20. Finalized Watercourse Crossing Inventory

For all watercourse crossings, NGTL must file with the Commission, **at least 60 days prior to commencing any watercourse crossing construction activities:**

- a) an updated inventory of all the watercourses to be crossed. This inventory must include:
 - i) name of each watercourse crossing being crossed and an identifier for the crossing;
 - ii) location of the crossing;
 - iii) primary crossing methods;
 - iv) timing of construction;
 - v) information on the presence of fish and fish habitat;
 - vi) the fisheries timing window of least risk for each crossing; and
 - vii) an indication of whether there is potential for harmful alteration, disruption or destruction of fish or fish habitat, as defined by the *Fisheries Act*, as a result of the proposed watercourse crossing.
- b) for each watercourse crossing where there is potential for harmful alteration, disruption or destruction of fish or fish habitat, as indicated above in a) part vii) provide:
 - i) detailed crossing-specific design drawings;
 - ii) photographs of the crossing location, including both upstream and downstream;
 - iii) a description of the fish species and habitat that is present at the crossing location, and whether fish spawning is likely to occur within the immediate area;
 - iv) site-specific mitigation and habitat enhancement measures to be used to minimize impacts to fish;
 - v) any potential residual effects;
 - vi) proposed reclamation measures;
 - vii) a discussion of potential impacts to local fisheries resources within the immediate area as a result of the crossing construction; and
 - viii) a description of how NGTL has taken available and applicable Indigenous Traditional Land Use and Traditional Ecological Knowledge into consideration in developing the watercourse crossing designs.

21. Contingency Watercourse Crossing Method

- a) For any fish-bearing watercourse crossing where NGTL will employ a contingency crossing method, other than a trenchless technique, instead of its proposed primary crossing method, and where there is no potential harmful alteration, disruption or destruction of fish or fish habitat, as defined in the *Fisheries Act*, NGTL must file with the Commission, a notification to this effect, **at least 10 days prior to commencing the contingency crossing**. In the notification, NGTL must explain why the contingency method is being employed and provide a summary of the differences between the primary and contingency watercourse crossing methods.
- b) For any fish-bearing watercourse crossing where NGTL will employ a contingency crossing method instead of its proposed primary method, and where there is potential for harmful alteration, disruption or destruction of fish or fish habitat, as defined by the *Fisheries Act*, NGTL must file with the Commission **at least 30 days prior to commencing construction of the contingency watercourse crossing**:
 - i) confirmation of the contingency watercourse crossing method that will be employed, the rationale for employing that method, and a summary of the differences between the primary and contingency watercourse crossing methods;
 - ii) the following site-specific information:
 - a. detailed crossing-specific design drawings;
 - b. photographs of the crossing location, as well as upstream and downstream;
 - c. a description of the fish species and habitat that is present at the crossing location, and if fish spawning is likely to occur within the immediate area;
 - d. the site-specific mitigation and habitat enhancement measures to be used to minimize impacts;
 - e. any potential residual effects;
 - f. proposed reclamation measures;
 - g. a discussion of the potential impacts to local fisheries resources within the immediate area as a result of the crossing's construction; and
 - h. a description of how NGTL has taken available and applicable Indigenous Traditional Land Use and Traditional Ecological Knowledge into consideration in developing the watercourse crossing designs; and

- iii) a summary of NGTL's consultation with appropriate government authorities and any potentially affected Indigenous peoples and stakeholders regarding the works proposed to be authorized, as well as any offsetting measures proposed. This summary must include all issues and concerns raised regarding these works and how NGTL has addressed or responded to them. If there are any outstanding issues or concerns, provide a plan as to how these will be addressed.
- c) NGTL must confirm, within 30 days after commencing operations that any contingency watercourse crossing identified to the Commission pursuant to a) and b) were the only contingency watercourse crossing(s) implemented for the construction of the pipeline.

22. Authorizations under Paragraph 35(2)(b) of the Fisheries Act

- a) For any instream activities that will require Authorization under paragraph 35(2)(b) of the *Fisheries Act*, NGTL must file with the Commission, **at least 10 days prior to commencing the respective instream activities**, a copy of the Authorization under paragraph 35(2)(b) of the *Fisheries Act*.
- b) NGTL must confirm, **within 30 days after commencing operations**, that any required *Fisheries Act* Authorizations were obtained from Fisheries and Oceans Canada and were filed with the Commission pursuant to a), or notify the Commission if no Authorizations were required.
- c) NGTL must also provide a copy to all Indigenous peoples who have expressed an interest in receiving a copy; and NGTL must, within 7 days of the filing in a), provide confirmation to the Commission that it has provided those copies.

23. Working within the Little Smoky Caribou Range Restricted Activity Period

- a) Clearing and construction activities within the Little Smoky Caribou Range must occur outside of the Restricted Activity Period (RAP) for woodland caribou of 15 February to 15 July. In the event that working within the RAP is unavoidable, NGTL must file with the Commission **for approval, at least 15 days prior to activities occurring within the RAP:**
 - i) a summary of consultation with Alberta Environment and Parks, Environment and Climate Change Canada, and any Indigenous peoples that expressed interest in the Little Smoky Caribou Range during the GH-003-2018 hearing process, including a list of concerns and how these have been addressed, or a rationale for why the concerns have not been addressed;
 - ii) a description of the remaining and proposed work activities including, but not limited to the following:

- a. a description of the scope of the work activities;
 - b. the proximity of each of the work activities to greenfield and other sensitive locations;
 - c. the predicted environmental effects of working within the RAP;
 - d. the specific mitigation that will be implemented to reduce the effects on the caribou; and
 - e. the predicted residual effects of the construction activities;
- iii) a comparison of the alternatives to working within the RAP that were considered and assessed, including the potential impacts of each;
- iv) a construction schedule for the remainder of the Project that includes each week NGTL intends to work within the RAP and includes but is not limited to the following:
- a. each work activity;
 - b. the dates each work activity will be conducted;
 - c. the workforce and equipment required for each work activity;
 - d. the location of each work activity with reference to the Environmental Alignment Sheets by Kilometre Post and Latitude and Longitude; and
 - e. if helicopters are required, the purpose of the helicopter plus the location and frequency of use;
- v) a report on the results from a caribou survey (including but not limited to telemetry) of the right of way and an appropriate buffer zone surrounding the area where activities will occur during the RAP. The survey will be conducted between three weeks to a month prior to the start of construction within the RAP. The report will include:
- a. timing of survey and method(s) used;
 - b. locations (Kilometre Post and Latitude and Longitude), dates and numbers of individual caribou sighted;
 - c. location and description of evidence of caribou use; and
 - d. description of the specific mitigation to be implemented and for how long;
- vi) documentation from a senior Alberta Environment and Parks manager authorizing activities between 15 February and 15 July. This documentation will include:
- a. minutes of meetings, conversation records, and letters with regard to approval of construction activity as described in part iv); and

- b. evidence that NGTL has contacted an appropriate qualified professional to discuss alternatives and potential mitigation and monitoring plans; and
 - vii) any other pertinent information that may be relevant to the above.
- b) NGTL must also provide a copy of the information required by this condition to all Indigenous peoples who have expressed an interest in receiving a copy; and NGTL must, within 7 days of the filing in a), provide confirmation to the Commission that it has provided those copies.

24. Sunset Clause

This Certificate shall expire on 23 October 2023, unless construction in respect of the Section 52 Pipeline and Related Facilities has commenced by that date.

Post-Construction and Operations

25. Condition Compliance by the Accountable Officer

Within 30 days of the date that the approved Project is placed in service, NGTL must file with the Commission a confirmation that the approved Project was completed and constructed in compliance with all applicable conditions in this Certificate. If compliance with any of these conditions cannot be confirmed, NGTL must file with the Commission details as to why compliance cannot be confirmed. The filing required by this condition must include a statement confirming that the signatory to the filing is the Accountable Officer of NGTL.

26. Quantification of Construction-related Greenhouse Gas (GHG) Emissions

- a) NGTL must file with the Commission **within 30 days after commencing operations**, a quantitative assessment of the actual GHG emissions directly related to the construction of the Section 52 Pipeline and Related Facilities, including but not limited to emissions generated by vehicles and equipment, land clearing and slash burning. The assessment must include:
- i) the year, make and model of equipment used;
 - ii) average operating hours for each vehicle or equipment type;
 - iii) emission estimates for each equipment type from current sources such as Environment and Climate Change Canada's National Inventory Report 1990-2017 or United States Environmental Protection Agency models such as MOVES2014; and
 - iv) the calculation of an updated, accurate emission factor for construction related GHG emissions in tonnes per kilometer.

The filing must also include:

- v) estimated biomass volumes remaining after merchantable timber was salvaged;
 - vi) change in total number of hectares cleared compared to estimates presented in the Project application; and
 - vii) a description of all mitigation measures undertaken to reduce GHG emissions associated with land clearing (for example, reduction of the number of hectares cleared or transportation of slash to a biomass pellet facility, or others).
- b) NGTL must also provide a copy to all Indigenous peoples who have expressed an interest in receiving a copy; and NGTL must, within 7 days of the filing in a), provide confirmation to the Commission that it has provided those copies.

27. Post-construction Monitoring Plan for Indigenous Peoples

- a) NGTL must file with the Commission for approval, **within 90 days after the date that the last Order for Leave to Open is issued**, a plan describing participation by Indigenous peoples in monitoring activities during post-construction of the Section 52 Pipeline and Related Facilities. The plan must include, but not be limited to:
- i) a summary of engagement activities (including methods, dates, and locations) undertaken with Indigenous peoples to obtain input into the monitoring plan and to develop opportunities for their participation in monitoring activities;
 - ii) a description of how the results from its engagement with Indigenous peoples were incorporated into the plan, and where suggestions and concerns raised by Indigenous peoples were not incorporated into the plan, an explanation as to why not;
 - iii) a list of the Indigenous peoples who were engaged on the plan, and a list of Indigenous peoples that have reached agreement with NGTL to participate as monitors;
 - iv) a description of the anticipated training and participant requirements, including potential certifications;
 - v) the scope, methodology, and justification for monitoring activities to be undertaken by NGTL and each participant identified in a)iii), including those elements of post-construction and operation, and geographic locations that will involve monitor(s);
 - vi) a description of how NGTL will use the information gathered through the participation of monitors including whether and how the information gathered can be shared more broadly with interested Indigenous communities, subject to appropriate protections for confidential information; and
 - vii) a description of how NGTL will provide the information gathered through the participation of monitors to the participating Indigenous community.

- b) NGTL must provide a copy of the plan to all Indigenous peoples who have expressed an interest in receiving a copy and NGTL must, within 7 days of the filing in a), provide confirmation to the Commission that it has provided those copies.

28. Employment, Contracting, and Procurement Report

- a) NGTL must file with the Commission, **within 6 months after the date that the last Order for Leave to Open is issued**, a report on employment, contracting, and procurement for the Project during the construction phase, that must include but is not limited to:
 - i) a summary of the elements or indicators monitored;
 - ii) a summary of Indigenous, local, and regional employment and business opportunities during the reporting period;
 - iii) the numbers of self-identified Indigenous businesses and individuals employed; and
 - iv) a summary of NGTL's engagement efforts, undertaken during the reporting period, with relevant Indigenous communities and local, regional, community, and industry groups or representatives, regarding employment and business opportunities. This summary must include any issues or concerns raised regarding employment and business opportunities and how NGTL has addressed or responded to them.
- b) NGTL must also provide a copy to all Indigenous peoples who have expressed an interest in receiving a copy; and NGTL must, within 7 days of the filing in a), provide confirmation to the Commission that it has provided those copies.

29. Pipeline Geographic Information Systems (GIS) Data

NGTL must file with the Commission, **within one year after commencing operations**, as-built GIS data in the form of Esri® shapefiles. This must include:

- a) A file that contains pipeline segment centre lines identified by pipeline name, where each segment has a unique outside diameter, wall thickness, maximum operating pressure, external coating, field-applied girth weld coating, pipe manufacturing specification and depth of cover. If the above values of the pipeline change at any point along the length of the pipeline, the pipeline should be segmented at that point. This file must include details on the degree of accuracy of the GIS data.
- b) A file that depicts point locations and names of compressor stations, terminals, custody transfer meters, and block valves, as applicable.

The datum must be NAD83 and projection must be geographic (latitudes and longitudes). The filing required by the condition must include a statement confirming that the signatory to the filing is the Accountable Officer of NGTL.

30. Post-Construction Environmental Monitoring Reports

- a) NGTL must file with the Commission, **on or before 31 January following each of the first, third and fifth complete growing seasons after completing final clean-up**, a post-construction environmental monitoring report that:
- i) describes the methodology used for monitoring, the criteria established for evaluating success and the results found;
 - ii) identifies any modifications for the criteria established for evaluating reclamation success described in its EPP, as approved by the Commission, and the rationale for any modifications;
 - iii) identifies the issues to be monitored, including but not limited to unexpected issues that arose during construction, and their locations (for example, on a map or diagram, in a table);
 - iv) describes the current status of the issues (resolved or unresolved), any deviations from plans and corrective actions undertaken;
 - v) assesses the effectiveness of the mitigation measures, both planned and corrective, applied against the criteria for success;
 - vi) includes a detailed summary of NGTL's consultation undertaken with the appropriate provincial and federal authorities, and affected Indigenous communities;
 - vii) provides proposed measures and the schedule that NGTL would implement to address ongoing issues or concerns; and
 - viii) includes an evaluation of the effectiveness of access control measures.

The report must include, but is not limited to, information specific to the effectiveness of mitigation applied to minimize effects on: soils, weeds, watercourse crossings, wetlands, rare plants, wildlife and wildlife habitat, wildlife species at risk and of special concern, including western toad habitat and caribou habitat, fish and fish habitat, Key Wildlife and Biodiversity Zones, trumpeter swan waterbodies, and Grizzly Bear Secondary Areas.

- b) NGTL must also provide a copy to all Indigenous peoples who have expressed an interest in receiving a copy; and NGTL must, within 7 days of the filing in a), provide confirmation to the Commission that it has provided those copies.

31. Caribou Habitat Restoration Implementation Report and Status Update

- a) NGTL must file with the Commission **for approval**, a Caribou Habitat Restoration Implementation Report and Status Update on the implementation and status of caribou habitat restoration measures undertaken on the Project right-of-way in areas of the Project within the Little Smoky Caribou Range. This report must be filed **on or before 1 November following the implementation of the revised caribou habitat restoration measures identified in the revised CHR&OMP as required by Condition 6**, and must include, at a minimum:

- i) a table of caribou habitat restoration measures implemented including, the location(s) of the measures on the right-of-way, the distance or spatial extent of the measures, the site specific method applied at each location, a description of the adjacent off-right-of-way habitat, as well as any site specific challenges;
 - ii) updated Environmental Alignment Sheets showing the types of caribou habitat restoration measures implemented and at what locations;
 - iii) a quantitative assessment and populated tables of the total remaining disturbance (direct and indirect) that was carried into the initial offset value calculation, including the disturbance before restoration, the restored footprint, the length of time anticipated for the restored habitat to become fully functional, and the total remaining disturbance;
 - iv) a summary of consultation on this report with Indigenous peoples that expressed an interest in being involved with the CHR&OMP and related filings during the GH-003-2018 hearing process, including any additional caribou-specific Indigenous knowledge, any concerns raised regarding the incorporation of the caribou-specific Indigenous knowledge provided and/or concerns regarding the report content, and a summary of any caribou-specific Indigenous knowledge and/or concerns that were not addressed and a rationale for why they were not addressed;
 - v) offset measures planning status; and
 - vi) updates or considerations, if any, from relevant provincial range or action plans, and any additional Traditional Land Use information identified since completion of the revised CHR&OMP (Condition 6).
- b) NGTL must also provide a copy to all Indigenous peoples who have expressed an interest in receiving a copy, to Environment and Climate Change Canada, and to all appropriate provincial authorities; and NGTL must, within 7 days of the filing in a), provide confirmation to the Commission that it has provided those copies.

32. Caribou Habitat Offset Measures Implementation Report

- a) NGTL must file with the Commission **for approval**, a Caribou Habitat Offset Measures Implementation Report demonstrating how all Project related residual effects from directly and indirectly disturbed caribou habitat have been offset. This implementation report must be filed **on or before 31 March following the implementation of the revised caribou offset measures identified in the revised CHR&OMP as required by Condition 6**, and must include:
- i) an inventory of what measures were implemented, at what map locations, for what distance or spatial area, and on what type of previous disturbance (for example, type, width, age, condition);
 - ii) an alignment sheet, or map indicating locations of offset measures;

- iii) a description of factors considered when determining the location for offset measures, including consideration of both site-specific factors, landscape-level factors and how the selected locations optimized landscape restoration or preservation;
 - iv) how the measures at the locations identified in i) and ii) met the criteria for offsets identified in the revised CHR&OMP;
 - v) a quantitative assessment of the final offset value calculations, based on the revised CHR&OMP and inventory of measures implemented from i), and demonstrating how the offset measures have offset the previously calculated residual effects;
 - vi) evidence of how consultation feedback was integrated into the implementation of offsets, including:
 - a. any feedback from provincial authorities; and
 - b. any feedback from potentially affected Indigenous peoples where the offset measures may be implemented; and
 - vii) a summary of consultation on this report with Indigenous peoples that expressed an interest in being involved with the CHR&OMP and related filings during the GH-003-2018 hearing process, including: any additional caribou-specific Indigenous knowledge provided, any concerns raised regarding the incorporation of the caribou-specific Indigenous knowledge provided and/or concerns regarding the report content, and a summary of any caribou-specific Indigenous knowledge and/or concerns that were not addressed; and a rationale for why they were not addressed.
- b) NGTL must also provide a copy to all Indigenous peoples who have expressed an interest in receiving a copy, to Environment and Climate Change Canada, and to all appropriate provincial authorities; and NGTL must, within 7 days of the filing in a), provide confirmation to the Commission that it has provided those copies.

33. Caribou Habitat Restoration and Offset Measures Monitoring Program (CHROMMP)

- a) NGTL must file with the Commission **for approval, on or before 31 March after the second complete growing season** after commencing operation of the Project, a Caribou Habitat Restoration and Offset Measures Monitoring Program for monitoring and verifying the effectiveness of the caribou habitat restoration and offset measures implemented as part of the CHR&OMP. This CHROMMP must include, but not be limited to:
- i) the scientific methodology and protocols for short-term and long-term monitoring of the restoration and offset measures, including the appropriate duration of monitoring for each type of measure implemented;
 - ii) sufficient sampling and control locations to provide statistical validity for each measure, accounting for ecological conditions;

- iii) protocols for how restoration and offset measures will be adapted, as required, based on the monitoring results from either this CHROMMP or other related NGTL caribou habitat programs;
 - iv) a quantitative assessment that demonstrates how the previously calculated residual effects have been offset by the measures implemented, to be updated in each report based on monitoring results;
 - v) a schedule for filing reports of monitoring results and the adaptive management responses, to the Commission, Environment and Climate Change Canada and provincial authorities to be contained in the CHROMMP as well as at the beginning of each report filed; and
 - vi) a summary of consultation on this report with Indigenous peoples that expressed an interest in being involved with the CHR&OMP and related filings during the GH-003-2018 hearing process, including any additional caribou-specific Indigenous knowledge provided, any concerns raised regarding the incorporation of the caribou-specific Indigenous knowledge provided and/or concerns regarding the report content, and a summary of any caribou-specific Indigenous knowledge and/or concerns that were not addressed and a rationale for why they were not addressed.
- b) NGTL must also provide a copy to all Indigenous peoples who have expressed an interest in receiving a copy; and NGTL must, within 7 days of the filing in a), provide confirmation to the Commission that it has provided those copies.

34. Caribou Monitoring Reports

- a) NGTL must file with the Commission based on the schedule referred to in the CHROMMP (Condition 33), Caribou Monitoring Report(s) which must outline the results of the CHROMMP. The report must also include, **for approval by the Commission**, all necessary corrective adaptive management measures required to demonstrate how implementation of the measures effectively fulfills the intent of the CHR&OMP (Condition 6).
- b) The report must also provide a summary of consultation on this report with Indigenous peoples that expressed an interest in being involved with the CHR&OMP and related filings during the GH-003-2018 hearing process, including: any additional caribou-specific Indigenous knowledge provided, any concerns raised regarding the incorporation of the caribou-specific Indigenous knowledge provided and/or concerns regarding the report content, and a summary of any caribou-specific Indigenous knowledge and/or concerns that were not addressed and a rationale for why they were not addressed.
- c) NGTL must also provide a copy to all Indigenous peoples who have expressed an interest in receiving a copy; and NGTL must, within 7 days of the filing in a), provide confirmation to the Commission that it has provided those copies.

35. Indigenous Working Group for the Little Smoky Caribou Range

For the purpose of collaborative finalization of the CHR&OMP and related detailed planning concerning restoration, access management, offsets and monitoring measures, and for the development of other filings relating to caribou required under Conditions 6, 31, 32, 33 and 34, including ensuring the collection and incorporation of caribou-specific Indigenous knowledge, NGTL must seek to establish an Indigenous Working Group (IWG) for the Little Smoky Caribou Range with any interested Indigenous communities that have been identified as being potentially affected by the Project ('The Indigenous Communities').

- a) NGTL must file with the Commission, for approval, within four months of issuance of the certificate for the Project, a plan for the establishment of an IWG. For clarification, the approval of this plan is not required prior to the commencement of construction. The plan for the establishment of the IWG should be developed in collaboration with any of The Indigenous Communities that express interest in participating, and to the extent possible, with the participation of relevant government departments, and must include at a minimum:
 - i) a summary of any activities undertaken to-date for the development of the plan to establish an IWG; and
 - ii) the planned steps for establishing an IWG, including an outline and timeline of activities for collaboration on the development of the IWG and its working documents.

- b) NGTL must file with the Commission, for approval, within eight months of issuance of the certificate for the Project, and every six months thereafter throughout the lifespan of the IWG, a report on the progress of the establishment and activities of the IWG:
 - i) if one or more of The Indigenous Communities agree to participate in the IWG, the report must confirm the establishment of the IWG and describe:
 - 1) the membership of the IWG;
 - 2) the collaboratively-developed working documents of the IWG, including, as agreed to by the membership of the IWG:
 - any terms of reference;
 - the scope of the IWG, including confirmation of any aspects of the Preliminary CHR&OMP that have already been implemented or irreversibly committed to, or are necessary to achieve at least the same level of protection for caribou and its habitat as committed to during the Commission hearing and in the Preliminary CHR&OMP, and are thus not open to change;
 - decision-making protocol;
 - dispute resolution process;
 - work plan; and
 - the lifespan of the IWG;

- 3) a summary of any issues or concerns raised by The Indigenous Communities regarding the functioning of the IWG, including plans or mechanisms for collaborative resolution of those issues, or an explanation as to why any issue or concern identified by The Indigenous Communities will not be addressed. NGTL must include any correspondence from The Indigenous Communities, if provided and subject to any confidentiality agreements, that outlines any issue or concern raised; and
 - 4) a description of the resources, including funding, that will be available to support the participation of The Indigenous Communities; or
- ii) if none of The Indigenous Communities agree to participate, or The Indigenous Communities do not come to agreement on the terms necessary to establish an IWG within eight months of issuance of the certificate for the Project, the report must include an explanation of NGTL's efforts to create an IWG and a summary of any reasons given by The Indigenous Communities for their non-participation.
- c) if an IWG has been formed, following the establishment of the IWG, NGTL must include the following in any filings to the Commission that are required under Conditions 6, 31, 32, 33 and 34:
 - i) in addition to the consultation requirements under those other conditions for Indigenous communities that are not participating in the IWG, a description of the collaboration with the IWG that has occurred with respect to the development of the filing, including how caribou-specific Indigenous knowledge has been incorporated into the filing, including the incorporation of cultural ceremonies; and
 - ii) a summary of any issues or concerns raised by interested Indigenous communities regarding the filing, including how NGTL has addressed the issue or concern in the filing, any ongoing collaborative attempts to resolve the issue or concern, or an explanation as to why the issue or concern will not be addressed.

- d) if an IWG has been formed, following establishment of the IWG, NGTL must file a summary of the activities of the IWG every 6 months until all filings under Conditions 6, 31, 32 and 33 have been approved and the first two years of monitoring reports under Condition 34 have been filed.

ISSUED at Calgary, Alberta on 23 October 2020.

THE COMMISSION OF THE CANADA ENERGY REGULATOR

Original signed by

Jean-Denis Charlebois
Secretary of the Commission

SCHEDULE A

Canada Energy Regulator Certificate GC-129

NOVA Gas Transmission Ltd.
Application dated 20 June 2018
assessed pursuant to section 52 of the *National Energy Board Act*

2021 NGTL System Expansion Project
File OF-Fac-Gas-N081-2018-03 02

Pipeline Specifications - Grande Prairie Mainline Loop No. 4 (Valhalla Section)

Project Type	New construction
Location (endpoints)	From SW 17-72-09 W6M to NE 29-75-09 W6M
Approximate Length	36 km
Outside Diameter	1,219 mm (NPS 48)
Wall Thickness	Line pipe: 13.3 mm Heavy wall pipe: 17.8 mm Heavy wall pipe (trenchless): 17.8 mm
Pipe Material	Carbon steel
Pipe Material Standard	CSA Z245.1
Pipe Grade	Grade 483 MPa
External Coating Type	Fusion-bond epoxy
Maximum Operating Pressure	8,450 kPa
Product	Non-sour natural gas

SCHEDULE A (cont'd)

Canada Energy Regulator Certificate GC-129

Pipeline Specifications - Grande Prairie Mainline Loop No. 3 (Elmworth Section)

Project Type	New construction
Location (endpoints)	From NW 24-68-07 W6M to SE 12-71-10 W6M
Approximate Length	46 km
Outside Diameter	1,219 mm (NPS 48)
Wall Thickness	Line pipe: 13.3 mm Heavy wall pipe: 17.8 mm Heavy wall pipe (trenchless): 17.8 mm
Pipe Material	Carbon steel
Pipe Material Standard	CSA Z245.1
Pipe Grade	Grade 483 MPa
External Coating Type	Fusion-bond epoxy
Maximum Operating Pressure	8,450 kPa
Product	Non-sour natural gas

Pipeline Specifications - Grande Prairie Mainline Loop No. 2 (Karr Section)

Project Type	New construction
Location (endpoints)	From NW 28-63-01 W6M to NE 26-67-05 W6M
Approximate Length	57 km
Outside Diameter	1,219 mm (NPS 48)
Wall Thickness	Line pipe: 13.1 mm Heavy wall pipe: 17.4 mm Heavy wall pipe (trenchless): 17.4 mm
Pipe Material	Carbon steel
Pipe Material Standard	CSA Z245.1
Pipe Grade	Grade 483 MPa
External Coating Type	Fusion-bond epoxy
Maximum Operating Pressure	8,275 kPa
Product	Non-sour natural gas

SCHEDULE A (cont'd)

Canada Energy Regulator Certificate GC-129

Pipeline Specifications - Grande Prairie Mainline Loop No. 2 (Deep Valley Section)

Project Type	New construction
Location (endpoints)	From SE 25-58-24 W5M to NW 28-63-01 W6M
Approximate Length	69 km
Outside Diameter	1,219 mm (NPS 48)
Wall Thickness	Line pipe: 13.1 mm Heavy wall pipe: 17.4 mm Heavy wall pipe (trenchless): 17.4 mm
Pipe Material	Carbon steel
Pipe Material Standard	CSA Z245.1
Pipe Grade	Grade 483 MPa
External Coating Type	Fusion-bond epoxy
Maximum Operating Pressure	8,275 kPa
Product	Non-sour natural gas

Pipeline Specifications - Grande Prairie Mainline Loop No. 2 (Colt Section)

Project Type	New construction
Location (endpoints)	From NW 1-57-22 W5M to NW 36-57-23 W5M
Approximate Length	13 km
Outside Diameter	1,219 mm (NPS 48)
Wall Thickness	Line pipe: 13.1 mm Heavy wall pipe: 17.4 mm Heavy wall pipe (trenchless): 17.4 mm
Pipe Material	Carbon steel
Pipe Material Standard	CSA Z245.1
Pipe Grade	Grade 483 MPa
External Coating Type	Fusion-bond epoxy
Maximum Operating Pressure	8,275 kPa
Product	Non-sour natural gas

SCHEDULE A (cont'd)

Canada Energy Regulator Certificate GC-129

Pipeline Specifications - Edson Mainline Loop No. 4 (Robb Section)

Project Type	New construction
Location (endpoints)	From NW 23-49-16 W5M to SE 11-53-18 W5M
Approximate Length	42 km
Outside Diameter	1,219 mm (NPS 48)
Wall Thickness	Line pipe: 13.7 mm Heavy wall pipe: 18.3 mm Heavy wall pipe (trenchless): 18.3 mm
Pipe Material	Carbon steel
Pipe Material Standard	CSA Z245.1
Pipe Grade	Grade 483 MPa
External Coating Type	Fusion-bond epoxy
Maximum Operating Pressure	8,690 kPa
Product	Non-sour natural gas

Pipeline Specifications - Edson Mainline Loop No. 4 (Dismal Creek Section)

Project Type	New construction
Location (endpoints)	From SW 3-47-14 W5M to NW 23-49-16 W5M
Approximate Length	32 km
Outside Diameter	1,219 mm (NPS 48)
Wall Thickness	Line pipe: 13.7 mm Heavy wall pipe: 18.3 mm Heavy wall pipe (trenchless): 18.3 mm
Pipe Material	Carbon steel
Pipe Material Standard	CSA Z245.1
Pipe Grade	Grade 483 MPa
External Coating Type	Fusion-bond epoxy
Maximum Operating Pressure	8,690 kPa
Product	Non-sour natural gas

SCHEDULE A (cont'd)

Canada Energy Regulator Certificate GC-129

Pipeline Specifications - Edson Mainline Loop No. 4 (Brewster Section)

Project Type	New construction
Location (endpoints)	From SE 14-39-10 W5M to NW 20-43-12 W5M
Approximate Length	49 km
Outside Diameter	1,219 mm (NPS 48)
Wall Thickness	Line pipe: 13.7 mm Heavy wall pipe: 18.3 mm Heavy wall pipe (trenchless): 18.3 mm
Pipe Material	Carbon steel
Pipe Material Standard	CSA Z245.1
Pipe Grade	Grade 483 MPa
External Coating Type	Fusion-bond epoxy
Maximum Operating Pressure	8,690 kPa
Product	Non-sour natural gas