



**CERTIFICATE GC-126**

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

**IN THE MATTER OF** an application by NOVA Gas Transmission Ltd. (NGTL) dated 31 March 2015 under section 52 of the NEB Act, for a Certificate of Public Convenience and Necessity authorizing the construction and operation of the 2017 NGTL System Expansion Project (Project), filed with the National Energy Board (NEB or Board) on 31 March 2015 under File OF-Fac-Gas-N081-2014-20 02;

**BEFORE** the Board on 16 May 2016.

**WHEREAS** the Project includes the proposed expansion of the existing NGTL System, consisting of approximately 230 kilometres of pipeline in five pipeline section loops and two compressor station unit additions (Section 52 Facilities) at various sites in Alberta;

**AND WHEREAS** the Section 52 Facilities are as set out in the attached Schedule A;

**AND WHEREAS** the Project has an estimated capital cost of approximately \$1.29 billion;

**AND WHEREAS** the Board considered NGTL's application and all subsequent submissions made by NGTL and the participants in the proceeding, and conducted an environmental assessment of the Project;

**AND WHEREAS** the Board held a public hearing in respect of the Project pursuant to Hearing Order GH-002-2015, as amended by way of procedural updates, during which the Board heard from NGTL and the participants in the proceeding;

**AND WHEREAS** pursuant to Hearing Order GH-002-2015, the Board heard oral traditional evidence from Aboriginal Intervenors in Fort McMurray, AB on 27 October 2015, in Grande Prairie, AB on 30 October 2015, and in Edmonton, AB on 4 and 5 November 2015;

**AND WHEREAS** the Board had regard to all considerations that were directly related to the Project and were relevant to the issues the Board considered for the Project, pursuant to Part III of the NEB Act;

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**AND WHEREAS** the Board prepared and submitted to the Minister of Natural Resources the *National Energy Board Report for NOVA Gas Transmission Ltd.'s 2017 NGTL System Expansion Project* (Report) setting out the Board's recommendation for the Section 52 Facilities of the Project;

**AND WHEREAS** the Board concluded that the Project, constructed and operated in full compliance with the terms and conditions recommended by the Board in Appendix 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 Board has issued Order XG-N081-013-2016 pursuant to section 58 of the NEB Act, granting NGTL exemptions from the requirements of subsections 31(c), 31(d) and section 33 of the NEB Act in respect of certain temporary infrastructure required for construction of the Project, and Order XG-N081-014-2016 pursuant to section 48 of the NEB Act, granting an exemption from the requirements of section 17 of the *National Energy Board Onshore Pipeline Regulations* with respect to certain auxiliary piping components of the Project;

**AND WHEREAS** the Governor in Council has decided, taking into account the implementation of NGTL's environmental protection procedures and mitigation measures specified in the Report with respect to the environmental assessment, including the terms and conditions contained in Appendix III of the Report, that the Project is not likely to cause significant adverse environmental effects.

**AND WHEREAS** the Governor in Council by Order in Council No. P.C.2016-962 dated 28 October 2016, directed the Board to issue Certificate of Public Convenience and Necessity GC-126 for the Section 52 Facilities of the Project, subject to the terms and conditions contained in Appendix III of the Report;

**NOW THEREFORE**, pursuant to section 54 of the NEB Act, the Board hereby issues this Certificate in respect of the Section 52 Facilities of the Project.

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

In these conditions, the expression "commencing construction" includes 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).

In these conditions, where any condition requires a filing with the National Energy Board (Board) "for approval" prior to taking an action, NGTL must not commence the indicated action or activity until the Board issues its approval of that filing.

In this document, the terms and expressions below (in bold) have the following meaning:

**Project:** NGTL's proposed 2017 NGTL System Expansion Project, and all its applied-for facilities and components.

**Section 52 Facilities:** The applied-for Project facilities consisting of approximately 230 kilometres (km) of pipeline in five new and separate pipeline section loops and two compressor station unit additions located at various existing sites in northern Alberta.

**Certificate:** The Certificate of Public Convenience and Necessity (Certificate) applied for by NGTL under Section 52 of Part III of the *National Energy Board Act* (NEB Act), authorizing the construction and operation of the Section 52 Facilities of the Project.

## Conditions

### General / Overarching

#### *1. Condition Compliance*

NGTL must comply with all of the Certificate conditions, unless the Board otherwise directs.

#### *2. Engineering*

NGTL must cause the Project to be designed, located, constructed, installed and operated in accordance with the specifications, standards, commitments made and other information included in or referred to in its Project application or in its related submissions.

#### *3. Implementation of 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 Project Application or in its related submissions.

#### *4. Sunset Clause (Certificate Expiration)*

Unless the Board otherwise directs prior to *two years from the date of the Certificate*, the Certificate shall expire *two years from the date of the Certificate*, unless construction in respect of the Section 52 Facilities has commenced by that date.

### Prior to Commencing Construction

#### *5. Commitments Tracking Table*

NGTL must:

- a) file with the Board and post on its Project website, and notify Aboriginal groups who have expressed to NGTL an interest in this filing, **within 90 days of the Certificate date and at least 30 days prior to commencing construction of the Section 52 Facilities**, a

Commitments Tracking Table (CTT) listing all commitments made by NGTL in its Project Application or in its related submissions, including reference to:

- i) the documentation in which the commitment appears (for example, the Project 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, file these updates with the Board, and notify Aboriginal groups who have expressed to NGTL an interest in this filing on a:
- i) monthly basis until commencement of operation; and
  - ii) quarterly basis thereafter until the end of the fifth (5th) year following the commencement of operation; and
- c) maintain at its construction office(s):
- i) the CTT listing all regulatory commitments and their completion status, including, but not limited to, those commitments resulting from NGTL's Project 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).

## ***6. Environmental Protection Plan (EPP)***

NGTL must file with the Board for approval, **at least 60 days prior to commencing construction**, an updated EPP specific to the Section 52 Facilities of the Project that includes, but is not limited to, the following:

- a) environmental protection procedures (including site-specific plans), criteria for implementing these procedures, mitigation measures and monitoring applicable to all Project phases and activities;
- b) a reclamation plan, which includes 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;
- c) a list of measures to be taken during construction to minimize disturbance to caribou and caribou habitat and help accelerate habitat restoration, including:
  - i) any provincial and federal best practices, requirements and timing restrictions specifically related to minimizing construction disturbance; and
  - ii) the criteria for where those measures will be taken.

- d) 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;
- e) updated environmental alignment sheets; and
- f) evidence demonstrating that consultation took place with relevant government authorities, where applicable.

The EPP must be a comprehensive compilation of all environmental protection procedures, mitigation measures, and monitoring commitments, as set out in NGTL's Project Application, subsequent filings, or as otherwise agreed to through the hearing process. The EPP must describe the criteria for the implementation of all procedures and measures, and must use clear and unambiguous language that confirms NGTL's intention to implement all of its commitments. Construction must not commence until NGTL has received approval of its EPP from the Board.

#### ***7. Revised Caribou Habitat Restoration and Offset Measures Plan (CHR&OMP)***

NGTL must file a revised version of the CHR&OMP with the Board for approval, and notify Aboriginal groups who have expressed to NGTL an interest in this filing, **at least 60 days prior to commencing construction**, for areas of the Project in critical caribou habitat in the Boundary Lake and Pelican Lake Sections. The updated version of the CHR&OMP is to include revisions based on evidence collected during the hearing process; notably, details relevant to the implementation of restoration measures and estimates provided in NGTL's responses to information requests. The filing is also to provide a listing or revision log of the updates made, the reference where they can be found in the revised CHR&OMP, as well as their reference from the hearing evidence.

NGTL must provide a copy of the filing to Environment and Climate Change Canada and also to the appropriate provincial authorities.

#### ***8. Outstanding Traditional Land Use Investigations***

NGTL must, **at least 60 days prior to commencing construction**, file with the Board for approval, and send copies to the Aboriginal groups included in its consultation activities, a report on any outstanding traditional land use (TLU) investigations for the Project.

The report must include, but is not limited to:

- a) a summary of the status of TLU investigations undertaken for the Project, including Aboriginal group-specific TLU studies or planned supplemental surveys;
- b) a description of how NGTL has considered and addressed information from any TLU investigations on which it did not report during the GH-002-2015 proceeding;

- c) a description of any outstanding concerns raised by potentially-affected Aboriginal groups 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;
- d) a summary of any outstanding TLU investigations or follow-up activities that will not be completed prior to commencing construction, including an estimated completion date, if applicable, and a description of how NGTL has already identified, or will identify, any potentially-affected TLU sites or resources if the outstanding investigations will not be completed prior to construction; and
- e) a description of how NGTL has incorporated any revisions into the TLU Site Discovery Contingency Plan.

### ***9. Emergency Response Plan for Construction***

NGTL must file with the Board, **at least 45 days prior to commencing construction**, the Project-specific Emergency Response Plan that would be implemented during the construction phase of the Project. 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.

### ***10. Heritage Resources***

NGTL must file with the Board, **at least 30 days prior to commencing construction**:

- a) for each of the Project pipeline sections, confirmation, signed by an officer of the company, that it has obtained all of the required archeological and heritage resource permits and clearances from the relevant provincial authorities;
- b) a description of how NGTL will meet any conditions and respond to any comments and recommendations contained in the permits and clearances referred to in a) above; and
- c) a description of how NGTL has incorporated any additional mitigation measures into its Environmental Protection Plans as a result of any conditions or recommendations referred to in b).

### ***11. Reclamation Plan for Temporary Workspace in the K'ih tsaa?dze Tribal Park (KTP)***

NGTL must file with the Board, **30 days prior to commencing construction of the Section 52 Facilities**, a Reclamation Plan to enhance the regeneration of vegetation in the temporary workspace in the KTP that includes:

- a) a description of the goals for reclamation, including the condition to which NGTL intends to return all or part of the temporary workspace; and
- b) confirmation that the status of reclamation will be reported in Post-Construction Monitoring Reports.

### ***12. Plan for Aboriginal Participation in Monitoring Construction Activities***

NGTL must file with the Board, and serve a copy on those Aboriginal groups identified in b), **at least 30 days prior to commencing construction**, a plan describing participation by Aboriginal groups in monitoring Project construction activities. The plan must include:

- a) a list of the Aboriginal groups engaged concerning participation in monitoring during construction;
- b) a list of those Aboriginal groups, if any, who have reached agreement with NGTL to participate as monitors during construction;
- c) a description of the scope, methodology, and measures for monitoring activities to be undertaken by each participating Aboriginal group identified in b), including:
  - i) a summary of engagement activities undertaken with participating Aboriginal groups to determine the proposed scope, methodology, and measures for monitoring;
  - ii) those elements of construction and geographic locations that will involve Aboriginal monitoring;
  - iii) a description of how information gathered through the participation of Aboriginal monitors will be used by NGTL; and
  - iv) a description of how information gathered through the participation of Aboriginal monitors will be provided to participating Aboriginal groups.

### ***13. Aboriginal Engagement Reports***

NGTL must file with the Board, **at least 30 days prior to commencing construction of the Section 52 Facilities**, and every six months thereafter until completing construction, a report summarizing NGTL's engagement with all potentially affected Aboriginal groups identified. These reports must include:

- a) a summary of the concerns raised by Aboriginal groups;
- b) a description of how NGTL has addressed or will address the concerns raised;
- c) a description of any outstanding concerns; and
- d) a description of how NGTL intends to address any outstanding concerns, or an explanation as to why no further steps will be taken.

### ***14. Update on Consultation Regarding Construction Noise Mitigation***

NGTL must file with the Board, **at least 30 days prior to commencing construction**, an update regarding construction noise mitigation, including:

- a) a summary of consultation activities with the residents living within 200 metres of the Bear Canyon Section, the residents living within 350 metres of the direct pipe installation under Highway 16 on the McLeod River Section, and the owners of the two potentially affected seasonal cabins on the Pelican Lake Section; and
- b) a summary of the need for, and selection of, appropriate mitigation to address any concerns regarding construction noise.

### ***15. Programs and Manuals***

NGTL must file the following programs and manuals with the Board, and notify Aboriginal Groups who have expressed to NGTL an interest in these filings, within the time specified:

- a) updated Construction Safety Manual(s), pursuant to section 20 of the *National Energy Board Onshore Pipeline Regulations* (OPR): **at least 14 days prior to construction;**
- b) Field Joining Program: **at least 14 days prior to the commencement of joining activity;**
- c) Field Pressure Testing Program: **at least 14 days prior to the commencement of pressure testing;**
- d) Operation & Maintenance Manual: **at least 14 days prior to the commencement of operation;** and
- e) confirmation that the existing Emergency Procedures Manual(s) are inclusive of the Project or confirmation the existing Emergency Procedures Manual(s) do not require updating: **at least 14 days prior to the commencement of operation.**

### ***16. Construction Schedule***

NGTL must file with the Board, **at least 14 days prior to commencing construction of the Project**, a detailed construction schedule(s) identifying major construction activities, and must notify the Board of any modifications to the schedule(s) as they occur.

### ***17. Final Pipe Specifications***

NGTL must file with the Board, **at least 14 days prior to commencing construction**, NGTL's final Pipeline Construction Specifications.

### ***During Construction***

#### ***18. Construction Progress Reports***

NGTL must file with the Board, and notify Aboriginal groups who have expressed to NGTL an interest in this filing, **by the middle and end of each month during construction of the Section 52 Facilities**, construction progress reports. The reports must include 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.



Each construction progress report filed for the Boundary Lake and Pelican Lake Sections of the Project must also include:

- a) an update as to which construction activities are on schedule or delayed with respect to the construction schedule filed with the Board during the hearing process; and
- b) a description of what additional measures will be implemented to remain on schedule to complete construction outside of the caribou critical timing window.

### ***19. Horizontal Directional Drilling and Microtunneling***

NGTL must file with the Board, at **least 60 days before commencement of horizontal directional drilling and microtunneling**, NGTL's horizontal directional drilling and microtunneling execution programs.

### ***20. Cathodic Protection***

NGTL must file with the Board, at least **14 days prior to installing cathodic protection in wetland areas**, a detailed description of the specific measures NGTL will implement to ensure cathodic protection is adequately maintained under the concrete coating or weights in wetland areas.

### ***21. Slope and Bank Failures***

NGTL must file with the Board, at least **14 days prior to commencing geotechnical work**, a detailed description and the scope of the mitigation necessary to protect the Project facilities and the rights-of-way; and to prevent future bank or slope failures.

### ***22. Watercourse Crossing Inventory***

NGTL must file with the Board, **at least 60 days prior to commencing any watercourse crossing construction activities**, the following:

- a) an updated inventory of all watercourses to be crossed, including, for each crossing:
  - i) the name of the watercourse being crossed and an identifier for the crossing;
  - ii) the location of the crossing;
  - iii) the primary and contingency crossing methods;
  - iv) planned construction timing;
  - v) information on the presence of fish and fish habitat;
  - vi) the restricted activity period;
- vii) an indication of whether any of Fisheries and Oceans Canada's applicable "Measures to Avoid Causing Harm to Fish and Fish Habitat" cannot be implemented;

- b) detailed generic design drawings of trenchless, dry open-cut, frozen open-cut, and isolation crossings of various watercourse types;
- c) site-specific information for each watercourse crossing where any of Fisheries and Oceans Canada's applicable "Measures to Avoid Causing Harm to Fish and Fish Habitat" cannot be implemented for the primary watercourse construction method:
  - i) detailed crossing-specific engineered design drawings;
  - ii) photographs up-stream, down-stream, and at the crossing location;
  - iii) 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;
  - iv) a description of the composition of the riparian habitat at the crossing location and an indication if the riparian habitat has a limiting effect on the productive capacity of the watercourse, and if its removal or disturbance represents a potential influence on fish communities;
  - v) the site-specific mitigation and habitat enhancement measures to be used to minimize impacts;
  - vi) any potential residual effects;
  - vii) proposed reclamation measures; and
  - viii) a discussion of the potential impacts to local fisheries resources within the immediate area as a result of the crossing's construction.

### ***23. Authorizations Under Paragraph 35(2)(b) of the Fisheries Act***

- a) For any watercourse crossings that will require Authorization under paragraph 35(2)(b) of the *Fisheries Act*, NGTL must file with the Board, **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*; and
- b) NGTL must confirm, **within 30 days after commencing operations**, that any required *Fisheries Act* Authorizations were obtained from Fisheries and Oceans Canada and filed with the Board pursuant to a), or notify the Board if no Authorizations were required.

### ***24. Contingency Watercourse Crossings***

- a) For any watercourse crossing where NGTL will employ a contingency crossing method instead of its proposed primary method, and where any of Fisheries and Oceans Canada's applicable "Measures to Avoid Causing Harm to Fish and Fish Habitat" cannot be implemented, NGTL must file with the Board **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; and

- ii) the following site-specific information:
  - i. detailed crossing-specific engineered design drawings;
  - ii. photographs upstream, downstream, and at the crossing location;
  - iii. 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;
  - iv. the site-specific mitigation and habitat enhancement measures to be used to minimize impacts;
  - v. any potential residual effects;
  - vi. proposed reclamation measures; and
  - vii. a discussion of the potential impacts to local fisheries resources within the immediate area as a result of the crossing's construction.
- b) For all other instances where a contingency crossing method will be employed and all of Fisheries and Oceans Canada's applicable "Measures to Avoid Causing Harm to Fish and Fish Habitat" will be implemented, NGTL must file with the Board a notification, **at least 15 days prior to commencing the contingency crossing**, that the contingency method will be employed. With this 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.
- c) NGTL must confirm, **within 30 days after commencing operations**, that any contingency watercourse crossing(s) identified to the Board pursuant to a) and b) were the only contingency watercourse crossing(s) implemented for the construction of the pipeline.

### ***25. Hydrostatic Testing Plan***

NGTL must file with the Board, **at least 30 days prior to pressure testing**, a Hydrostatic Testing Plan for the Project that includes:

- a) details of the location(s) of water withdrawal and discharge, and how these were selected;
- b) clearing activities or any other associated works, if required, to allow for access to or transport of the hydrostatic test water to and from the Project facilities;
- c) the rate(s) and volume(s) of water withdrawal;
- d) the flow rate/volume of water at withdrawal location(s);
- e) the volume(s) and rate(s) of water discharge;
- f) site-specific mitigation measures to be used for the water withdrawal and discharge locations, or at any other locations required for hydrostatic test water; and
- g) any applicable provincial authorizations and mitigation requirements.

## ***26. Welding and Non-Destructive Examination Procedures***

NGTL must, during construction, maintain at each construction site:

- a) a copy of the welding procedures;
- b) a copy of the applicable non-destructive examination and testing procedures used on the Project; and
- c) all supporting documentation related to non-destructive testing.

## **Post-Construction and Operations**

### ***27. Geotechnical Report Regarding Slope Stability***

NGTL must file with the Board, **within 90 days of the completion of construction**, a geotechnical report which includes:

- a) geotechnical observations;
- b) field recommendations;
- c) how NGTL implemented the field recommendations during construction of the Project;
- d) location of trench breakers, drainage and erosion control measures;
- e) all of the slope stabilization techniques implemented;
- f) recommendations with respect to follow-up monitoring, notably at locations where inactive slide areas have been noted;
- g) a plan to follow up on the recommendations made in f); and
- h) a rationale for circumstances where field or other recommendations have not been implemented.

### ***28. Geotechnical Report Regarding Muskeg***

NGTL must file with the Board, **within 90 days of the completion of construction**, a geotechnical report which includes, but is not limited to:

- a) muskeg observations;
- b) field recommendations;
- c) how NGTL implemented the field recommendations during construction of the Project;
- d) recommendations with respect to follow-up monitoring;
- e) a plan to follow up on the recommendations made; and
- f) a rationale for any instance where recommendations have not been implemented.

### ***29. Geotechnical Report Regarding Permafrost***

NGTL must file with the Board, **within 90 days of the completion of construction**, a geotechnical report which summarizes:

- a) permafrost observations;
- b) field recommendations;
- c) how NGTL implemented the field recommendations during construction of the Project;
- d) recommendations with respect to follow-up monitoring;
- e) a plan to follow up on the recommendations made; and
- f) a rationale for any circumstances when recommendations are not followed.

### ***30. Pipeline Geographic Information System (GIS) Data***

NGTL must provide to the Board, **within 1 year after commencing operations**, GIS data in the form of an Esri shapefile that contains pipeline segment centre lines, where each segment has a unique outside diameter, wall thickness, maximum operating pressure, external coating, field-applied girth weld coating, and pipe manufacturing specification. 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. NGTL must also provide GIS locations and names of facilities such as compressor stations, meter stations, launcher and receiver facilities, and block valves, as applicable.

The datum must be NAD83 and projection must be geographic (latitude and longitude).

### ***31. Caribou Habitat Restoration Implementation Report and Status Update***

NGTL must file with the Board for approval, and notify Aboriginal groups who have expressed to NGTL an interest in this filing, an implementation report and status update for the habitat restoration measures implemented on the Project rights-of-way **on or before 1 July after the implementation of rights-of-way habitat restoration measures**, for areas of the Project in critical caribou habitat in the Boundary Lake and Pelican Lake Sections. The implementation and status update must include, but is not limited to:

- a) a table of caribou habitat restoration measures implemented including, their location on the rights-of-way, their distance or spatial extent, the site specific method applied at each location, a description of the adjacent off-rights-of-way habitat, as well as any site-specific challenges;
- b) updated Environmental Alignment Sheets showing the types of measures implemented and at what locations;
- c) a quantitative assessment and populated tables of the total remaining disturbance (direct and indirect) that was carried into the initial offset value (IOV) calculation, including the disturbance before restoration, the restored footprint and the total remaining disturbance;

- d) updates to consultation logs;
- e) offset measures planning status; and
- f) updates or considerations, if any, from relevant Provincial range or action plans.

NGTL must provide a copy of the filing to Environment and Climate Change Canada and also the appropriate provincial authorities.

### ***32. Caribou Habitat Restoration and Offset Measures Monitoring Program (CHROMMP)***

NGTL must file with the Board for approval, and notify Aboriginal groups who have expressed to NGTL an interest in this filing, **on or before 1 November after the first complete growing season**, a final Program for monitoring and verifying the effectiveness of the caribou habitat restoration and offset measures implemented as part of the CHRP and OMP. This CHROMMP must include, but not be limited to:

- a) 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;
- b) sufficient sampling and control locations to provide statistical validity for each measure, accounting for ecological conditions;
- c) frequency, timing, locations and the rationale for each monitoring;
- d) protocols for how restoration and offset measures will be adapted, as required, based on the monitoring results from either this Program or other NGTL Caribou Habitat Restoration and Offset Measures Monitoring Plans or Programs;
- e) 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; and
- f) a schedule for filing reports of monitoring results and the adaptive management responses, to the Board, Environment and Climate Change Canada and provincial authorities to be contained in the CHROMMP as well as at the beginning of each report filed.

### ***33. Caribou Monitoring Reports***

NGTL must file with the Board for approval, based on the schedule referred to in the Caribou Habitat Restoration and Offset Measures Monitoring Program (CHROMMP), a report(s) outlining the results of the CHROMMP. NGTL must also notify Aboriginal groups who have expressed to NGTL an interest in this filing when the filings are available.

### ***34. Caribou Habitat Offset Measures Implementation Report***

NGTL must file with the Board for approval, and notify Aboriginal groups who have expressed to NGTL an interest in this filing, 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 after the implementation of offset measures** and must include:

- a) an inventory of what measures were implemented, at what map locations, for what distance or spatial area, and on what type of previous disturbance (e.g., type, width, age, condition);
- b) 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;
- c) how the measures at those locations met the Offset Measures Plan criteria for offsets;
- d) a quantitative assessment of the final offset value (FOV) calculations, based on the revised CHR&OMP and inventory of measures implemented from (a), and demonstrating how the offset measures have offset the previously calculated residual effects; and
- e) evidence of how consultation feedback was integrated into the implementation of offsets, including:
  - i) any feedback from provincial authorities and
  - ii) any potentially affected Aboriginal groups where the offset measures may be implemented.

NGTL must provide a copy of the filing to Environment and Climate Change Canada and also the appropriate provincial authorities.

### ***35. Condition Compliance by the Accountable Officer***

**Within 30 days of the date that the approved Section 52 Facilities of the Project are placed in service**, NGTL must file with the Board a confirmation that the Section 52 Facilities were 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 Board 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, appointed as Accountable Officer pursuant to section 6.2 of the OPR.

### ***36. Post-Construction Monitoring Reports***

**On or before 31 January after each of the first, third and fifth complete growing seasons after final clean-up**, NGTL must file with the Board, a post-construction environmental monitoring report that:

- a) describes the methodology used for monitoring, the criteria established for evaluating success and the results found;
- b) identifies any modifications for the criteria established for evaluating reclamation success described in its EPP, as approved by the Board, and the rationale for any modifications;
- c) identifies the issues to be monitored, including but not limited to unexpected issues that arose during construction, and their locations (e.g., on a map or diagram, in a table);
- d) describes the current status of the issues (resolved or unresolved), any deviations from plans and corrective actions undertaken;
- e) assesses the effectiveness of the mitigation (planned and corrective) measures applied against the criteria for success;
- f) includes details of consultation undertaken with the appropriate provincial and federal authorities;
- g) provides proposed measures and the schedule that NGTL would implement to address ongoing issues or concerns; and
- h) includes confirmation that NGTL has notified Aboriginal groups who have expressed to NGTL an interest in this filing.

The report must include, but is not limited to, information specific to the effectiveness of mitigation applied to minimize effects to: 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, Grizzly Bear Secondary Area, Special Access Zones, and any activities associated with the hydrostatic testing plan.

NGTL must also include an evaluation of the effectiveness of the access control measures.

Issued at Calgary, Alberta on 4 November 2016.

NATIONAL ENERGY BOARD

*Original signed by L. George for*

Sheri Young  
Secretary of the Board



**SCHEDULE A**  
**Certificate GC-126**

**NOVA Gas Transmission Limited (NGTL)**  
**Application pursuant to sections 52 and 58 of Part III;**  
**and to Part IV of the *National Energy Board Act***  
**for the 2017 NGTL System Expansion Project (Application)**  
**Filed 31 March 2015**

**National Energy Board (Board or NEB)**  
**2017 NGTL System Expansion Project (Project)**  
**File OF-Fac-N081-2014-20 02**  
**Hearing GH-002-2015**

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Pipeline Specifications – Northwest Mainline Loop - Boundary Lake Section

<b>Project Type</b>	New construction
<b>Location</b>	From the Alces River Compressor Station, Alberta, at NW-13-085-13 W6M  to the Owl Lake Meter Station South, Alberta, at NW-20-094-12 W6M
<b>Approximate Length</b>	91 km
<b>Outside Diameter</b>	NPS 36 (914 mm)
<b>Wall Thickness</b>	Line pipe 11.8, 15.7 mm
<b>Pipe Material</b>	Carbon steel
<b>Pipe Material Standard</b>	CSA Z245.1
<b>Pipe Grade</b>	483 MPa or higher
<b>External Coating Type</b>	Fusion-bonded epoxy
<b>Maximum Operating Pressure</b>	8450 kPa
<b>Product</b>	Non-sour natural gas

Pipeline Specifications – Northwest Mainline Loop No. 2 - Bear Canyon Section

<b>Project Type</b>	New construction
<b>Location</b>	From the Saddle Hills Compressor Station, Alberta, at SE-05-079-09 W6M  to SW-35-080-11 W6M, Alberta
<b>Approximate Length</b>	27 km
<b>Outside Diameter</b>	NPS 36 (914 mm)
<b>Wall Thickness</b>	Line pipe 11.8, 15.7 mm
<b>Pipe Material</b>	Carbon steel
<b>Pipe Material Standard</b>	CSA Z245.1
<b>Pipe Grade</b>	483 MPa or higher
<b>External Coating Type</b>	Fusion-bonded epoxy
<b>Maximum Operating Pressure</b>	8450 kPa
<b>Product</b>	Non-sour natural gas

Pipeline Specifications – Grande Prairie Mainline Loop No. 2 - McLeod River Section

<b>Project Type</b>	New construction
<b>Location</b>	From NW-21-055-20 W5M, Alberta to SE-11-053-18 W5M, Alberta
<b>Approximate Length</b>	37 km
<b>Outside Diameter</b>	NPS 48 (1219 mm)
<b>Wall Thickness</b>	Line pipe 13.1, 14.5 mm
<b>Pipe Material</b>	Carbon steel
<b>Pipe Material Standard</b>	CSA Z245.1
<b>Pipe Grade</b>	483 MPa or higher
<b>External Coating Type</b>	Fusion-bonded epoxy
<b>Maximum Operating Pressure</b>	8275 kPa (8690 kPa for approximately 100 m)
<b>Product</b>	Non-sour natural gas

Pipeline Specifications – Liege Lateral Loop No. 2 - Pelican Lake Section

<b>Project Type</b>	New construction
<b>Location</b>	From the Buffalo Creek Compressor Station, Alberta, at SW-19-086-18 W4M  to the Pelican Lake Compressor Station, Alberta, at NE-30-081-16 W4M
<b>Approximate Length</b>	55 km
<b>Outside Diameter</b>	NPS 30 (762 mm)
<b>Wall Thickness</b>	Line pipe 9.8 mm
<b>Pipe Material</b>	Carbon steel
<b>Pipe Material Standard</b>	CSA Z245.1
<b>Pipe Grade</b>	483 MPa or higher
<b>External Coating Type</b>	Fusion-bonded epoxy
<b>Maximum Operating Pressure</b>	9930 kPa
<b>Product</b>	Non-sour natural gas

Pipeline Specifications – Kettle River Lateral Loop - Christina River Section

<b>Project Type</b>	New construction
<b>Location</b>	From the Leismer-Kettle crossover, Alberta, at NW 26-080-06 W4M  to the Graham Lateral Loop No. 2, Alberta, at NW-14-079-05 W4M
<b>Approximate Length</b>	20 km
<b>Outside Diameter</b>	NPS 24 (610 mm)
<b>Wall Thickness</b>	Line pipe 7.9 mm
<b>Pipe Material</b>	Carbon steel
<b>Pipe Material Standard</b>	CSA Z245.1
<b>Pipe Grade</b>	483 MPa or higher
<b>External Coating Type</b>	Fusion-bonded epoxy
<b>Maximum Operating Pressure</b>	9930 kPa
<b>Product</b>	Non-sour natural gas

Facilities Specifications – Alces River Compressor Station Unit Addition

<b>Project Type</b>	New construction
<b>Facility Type</b>	Compressor Station
<b>Location</b>	NE-13-085-13 W6M, Alberta
<b>Description</b>	16.5 MW gas turbine
<b>Maximum Operating Pressure</b>	8450 kPa
<b>Product</b>	Non-sour natural gas

Facilities Specifications – Otter Lake Compressor Station Unit Addition

<b>Project Type</b>	New construction
<b>Facility Type</b>	Compressor Station
<b>Location</b>	SW-08-091-16 W5M, Alberta
<b>Description</b>	30 MW gas turbine
<b>Maximum Operating Pressure</b>	9930 kPa
<b>Product</b>	Non-sour natural gas