

SUMMARY OF ISSUES — GAZODUQ PROJECT

This document provides a general summary of the comments received by the Impact Assessment Agency of Canada (the Agency) on the Gazoduq Project (the project) during the comment period on the Initial Project Description submitted by the proponent, Gazoduq Inc. Original comments are posted on the Agency's Impact Assessment Registry (the Registry).

Accidents and Malfunctions
Importance of using complete, unbiased factual data and information about natural gas and its exploitation and uses, including past accident history, potential hazards and risks.
Details about the potential for accidents and malfunctions throughout the preferred planning area, including malicious acts, risks and hazards during all phases of the project (construction, pipeline operation and marine transportation of natural gas). Consideration of existing nearby infrastructure, such as Bagotville airport, significant water bodies for the population and the increased risk of accidents and malfunctions as the pipe ages.
Details on the methane leak detection and mitigation methods that will be used and compliance with reporting procedures required by the government.
Effects of accidents and malfunctions (gas leak, pipe failure, explosion, forest fires, etc.) on the health and safety of the public and Indigenous peoples; the economic health of affected areas; and components of the environment, including air, water, soil, wetlands, land and aquatic wildlife.
Details on the contingency plan that will detail the technology, methods and measures put in place (e.g., monitoring during operation) to ensure the ecological integrity of wildlife and the safety of citizens and members of Indigenous communities involved in land-based activities. Clarification of measures that will allow an effective emergency response (e.g., frequency of response, time to respond, authorities involved and synergy with public safety).
Details on emergency evacuation procedures and means to communicate with and notify the population, users, agricultural and forestry producers and Indigenous communities involved in activities on the territory in the event of an emergency, such as the dumping of waste and hazardous materials.
Details on financial responsibility, including estimated costs, and standards for clean-up in the event of accidental spills, during all phases of the project. Clarity on anticipated soil and water decontamination plans.
Clarity on the ability of the existing pipeline system, located between Alberta and Ontario, to support the addition of a significant amount of gas from Western Canada without high risk of leaks or spills. Details on current system capacity in comparison with the required capacity for the planned liquefaction plant in Saguenay.
Country Foods
Effects of contaminants released into the environment on country food (air, water, soil or plants).
Biodiversity
Details factoring in all environmental components from the perspective of biodiversity protection and ecosystem maintenance.
Effects on biodiversity, plant species, and wildlife and terrestrial ecosystems caused by, among other things, fragmentation, habitat loss and destruction; introduction of invasive species; avoidance and movement of wildlife; increased wildlife predation along the proposed project route; and potential accidents and malfunctions.
Effects of increased shipping, pollution and potential accidents and malfunctions caused by this project, among other things, on the shoreline flora and marine ecosystem of the Saguenay-St. Laurent Marine Park; the estuary upstream of the fjord; and on the current willingness and efforts to protect them.
Clarity on the criteria used to define what constitutes a sensitive area, and clarity on which sensitive areas will be avoided and which ones will not.
Effects of compressor stations on ecosystems and species in the vicinity of these facilities.
Climate Change and Greenhouse Gas (GHG) Emissions
Clarity on total methane emissions from natural gas extraction, transport and end use, and the impact of these emissions combined with climate change.
Project contribution to the effort to fight climate change at the provincial, national and international levels. Ability of the governments of Canada and Quebec to meet their environmental obligations and climate change commitments.
Quantifying and analyzing the project's greenhouse gas emissions and their effects over the entire project life cycle, from the natural gas extraction phase to gas distribution and final consumption phase, including emissions at hydraulic fracturing sites that continue several years after cessation of activities. Include in this calculation fugitive and exhaust emissions (normal and accidental), specify the anticipated rate of fugitive leakage (and its estimation method) and consider scenarios where compressor station turbines are powered by natural gas or electricity.

Details on the amount of methane released annually during purges at compressor stations and the number of purges required.
Documented effects of carbon capture loss due to the expected deforestation by the project.
Details of the proponent's plan to align with the climate change commitments of the governments of Canada and Quebec on the mitigation measures that will be implemented to limit greenhouse gas emissions.
Evaluation of a greenhouse gas emissions scenario that would simulate the replacement of cleaner energy sources (hydroelectricity and other renewable energies) by natural gas in international markets.
Residual effects of climate change.
Socio-economic Conditions
Importance of social acceptability and details regarding the criteria that will be factored in by the proponent to determine whether the project is socially acceptable.
Clarity on real economic benefits at the community, provincial and national levels.
Clarity on the possibility of natural gas distribution contracts with local companies in northern Ontario and Quebec communities. Details on the identity of these local companies and where they would be connected to the pipeline.
Impacts on the workforce in Indigenous and non-Indigenous communities, by documenting indicators that ensure the sustainability of local businesses and regional workforce (number of direct and indirect jobs created; number of jobs reserved for residents; capacity of the existing local workforce; quality of jobs related to working conditions; wages and duration of employment; and socio-demographic characteristics of the labour market).
Impacts on local and regional economies, including the home valuation near the route, local SMEs in the context of labour shortage and future activities of forestry companies, including the construction of forest roads across the existing pipeline.
Effects on the economic contribution of tourism and ecotourism to small communities and local tourism and recreation businesses located along the proposed route that are dependant on the integrity of the landscape and its ecosystem.
Questions on the possibility of impact-benefit agreements with communities along the route.
Involvement and cooperation with current and future private lot owners and local businesses located along the proposed project route, whose interests and assets would be affected by the project. Discussion on the financial compensation that will be allocated to private lot owners and forestry companies, including the amount and duration.
Clarity regarding contracts or formal commitments between the proponent and non-Indigenous local communities resulting from the promised annual \$36 million and details on their administration (involvement of local communities, payment terms, administrative reports, etc.).
Effects of the construction and presence of the pipeline on the value and use of agricultural and forest land, including constraints related to easements and land opening in wooded areas, liability insurance, loss of productive land and addition of constraints to agricultural work (e.g., limited access to fields during certain periods). Clarifications on the proponent's financial contribution for the use, maintenance and rehabilitation of forest roads.
Effects on wild blueberry fields, their production potential and the development of new plots in the presence of the pipeline.
Effects on Énergir's ongoing efforts to serve the distribution network in the Saguenay industrial port area.
Impacts of the project on the Canadian energy economic context and its contribution to the energy transition given the availability of renewable energy sources in northern Quebec and Ontario.
Details of the project's impact on the production, supply and price of natural gas at the domestic (including western Canadian) and international levels, as well as on other energy sources.
Clarity on the existence of medium and long-term export contracts with international market customers. Feasibility for the proponent to establish contracts which stipulate that natural gas will be used to replace more polluting energy sources.
Conduct a cost-benefit analysis of natural gas extraction and production that will take into account the reality of small communities, the entire affected population and the impacts on TC Energy's main network.
Clarification on the economic incentives and any form of economic support provided by governments to the proponent.
Details on the actual tax benefits, location of investors and their use of tax havens, and references and sources used to estimate the advance payments of taxes and royalties that will be paid in Canada, Quebec and Ontario.
Details concerning the use of forest roads and financial participation in their maintenance and rehabilitation after construction work.

Impacts of the project on the regional identity of affected small communities. Concerns about the impact of the project on the country's national unity.
Effects of the presence and operation of the pipeline on current and future public access and use of forest lands and water bodies, including trapping, hunting, fishing, recreation and tourism and resort activities (e. g. hiking, snowmobiling, ice fishing and water sports).
Details on anticipated measures to align land use, including during the dismantling of infrastructure and temporary access to forest areas.
Project Contribution to Sustainability
Project's contribution to environmental and economic sustainability, both nationally and internationally.
Concerns about the project's impact on intergenerational equity and the project's positive and negative impacts on the planet for the next seven generations.
Waste
Details on the management and disposal plan for all waste generated during the project life cycle. Clarity on the different types of waste produced, including non-hazardous solid waste and toxic or hazardous industrial waste.
Drinking Water, Surface Water, and Groundwater
Effects on existing or potential drinking water sources, including groundwater sources and eskers in areas through which the pipeline will flow, that may be affected by, among other things, changes in water flow, accidents and malfunctions.
Concerns about the amount of water used by the Énergie Saguenay project plant and the management of contaminated water generated there.
Effects on the physicochemical quality of the surface and groundwater (aquifers) related to the construction and operation phases. Consideration of groundwater resurgence and various sources of contamination such as deposition of air pollutants and dust, erosion, sedimentation, runoff, acid rock drainage or leached metals, wastewater discharge, discharge of harmful substances related to accidental spills, methane leakage due to pipe breaks and maintenance of access roads with herbicides.
Effects on the hydrological regime (surface water), including forest environments, and hydrogeological (groundwater) regime of all watercourses attributable to various disturbances and works that may affect the direction of flow, such as hydrostatic tests, excavation or reworking of soils, the presence of sediments or rocks, and drilling and blasting.
Effects on surface and groundwater quality of project-related activities, including those due to hydraulic fracturing during natural gas extraction, taking into account the type of sediment in the analysis.
Cumulative Effects
Cumulative effects on greenhouse gas emissions and climate change.
Cumulative effects on biodiversity, species at risk and ecosystems, including the beluga whale's wildlife habitat.
Cumulative effects on biodiversity and ecosystems in the context of climate change due to migration of plant and wildlife species, forest fragmentation and habitat loss.
Cumulative and regional effects on agricultural lands and activities, on the Saguenay River and on its users attributable to increased marine traffic and past, present and future development projects related to the effects of the Gazoduq project, including the Énergie Saguenay project.
Cumulative effects on vital functions of marine animals and mammals, including the beluga whale, due to increased vessel traffic and movement that could result in increased noise pollution and collision risk. Cumulative effects of these same activities on the habitat of these species due to changes in ecosystem productivity and ecological services, including water filtration, sediment mixing and nutrient cycles.
Cumulative effects on Indigenous peoples, including the cumulative effects of impacts on their rights. In addition to communities located near the proposed project route, consideration should be given to communities whose traditional territory is crossed by the project or who are located in the watersheds affected by the project.
Clarity on the ecological impacts and cumulative effects of hydraulic fracturing.
Concerns about the safe coexistence of the project with current and future mining operations in relation to ground-based explosions and vibrations caused by mining activities.
The risk that other gas or oil pipelines will be built in the study area in the future.
Effects of the Environment on the Project
Environmental effects on pipeline resilience and natural gas transport due to freeze-thaw cycles, climate change and increased extreme weather and rainfall events. Details of the climate-sensitive aspects of the project design that were taken into account.

Effects of forest fires on explosion risks.
Acoustic Environment
Effects of noise pollution during the construction and operation phases.
Atmospheric Environment
Effects on air quality in general, during all phases of the project.
Effects on air quality from atmospheric emissions caused by project-related activities, including those from machinery exhaust gases, product leaks, fugitive dust, fuel combustion by-products, blasting products and compressor station operations.
Effects on human health and sensitive ecosystem receptors caused by particulate emissions (PM, PM10 and PM2.5), nitrogen oxides (NOx) and sulphur oxides (SOx), and other potentially hazardous substances, such as volatile organic compounds (VOCs), hydrogen sulphide (H2S), polycyclic compounds, aromatic hydrocarbons (PAH) and carbon monoxide (CO).
Effects on human health and sensitive ecosystem receptors due to dust emissions from activities that physically disturb the soil or rock, such as earthworks (digging activities), clearing, blasting and transportation.
Visual Environment and Natural Heritage
Effects of change to visual environmental on human receptors, including impact on the local tourism industry.
Effects on the territory's natural and wild landscapes in the Saguenay and Abitibi regions, including those of high tourist value, in relation to the project and its related activities, such as the establishment of new industries in the industrial port area and the increase in maritime traffic.
Effects of compressor stations on the surrounding landscape considering that the proposed sites are used for recreational and tourism purposes.
Clarity on the landscape alignment measures that will be taken for this permanent right-of-way project.
Species at Risk
Effects on the integrity of threatened or vulnerable wildlife and plant species or species likely to be designated in the corridor under study (17 species at risk, including wolverine, caribou, the Blanding's turtle, yellow rail, striped bass, American eel, Arctic char and 18 plant species at risk).
Effects on federally listed species at risk, including beluga whales, right whales, humpback whales and caribou, that may result from construction and operation of the project and that affect one or more individuals, including death, harassment or other harm suffered, destruction of residence or critical habitat.
Specific effects on species at risk on federal lands.
Effects on species at risk in general, including the location of these species, due to accidents and malfunctions and sensory disturbances caused by noise, lights, vibration, blasting, machinery, contamination and increased marine traffic in the Saguenay, the Saint-Laurent and its gulf.
Effects on the use of habitat and critical habitat by species at risk due to habitat loss, fragmentation and temporary or permanent alteration, sensory disturbance and individual mortality. Effects of related equipment, including temporary infrastructure and new access roads, on threatened and vulnerable ecosystems and species.
Clarity on how to consider habitats of species likely to be designated as threatened or vulnerable in determining the preferred planning area and the effects of habitat loss on the recovery of species at risk.
Effects of linear infrastructure on caribou and caribou habitat, including habitat destruction and fragmentation and changes in the movement of its predators, as well as pipeline construction in the vicinity of esker beds.
Clarity on the requirement for permits under Canada's <i>Species at Risk Act</i> .
Need for a moratorium on projects that threaten the survival or recovery of species at risk, particularly marine mammals.
Project Expansion
Details on the extent of the potential expansion of the natural gas pipeline system implied by the provision of open access, including the additional right-of-way of potential additional infrastructure and the environmental and socio-economic effects and benefits of such expansion.
Terrestrial Wildlife and their Habitat
Clarity on how animal rights have been or would be considered.
Effects on wildlife (including waterfowl, large wildlife and furbearer populations) due to habitat loss and modification, creation of barriers to dispersal, disruption of movement corridors and changes in wildlife predation and migration.

Effects on wildlife due to the construction of permanent access roads (required to maintain the pipeline) on land access and the increased removal pressure that may result.
Effect on wildlife caused by noise, including noise caused by blasting.
Long-term effects on wildlife, including cumulative effects, taking into consideration, among other things, existing forestry operations, mining and hydroelectric dams in the study corridor, and residual effects after mitigation.
General
Clarity on the obligations that will be imposed by the proponent on future clients or subcontractors, particularly in terms of labour, community involvement and the fight against climate change.
Clarity on the extent, duration and reversibility of environmental effects.
Clarity on what the proponent considers being approval by landowners who are affected by a field study or located on the proposed project route and the means and processes by which easements and access to public and private lands will be obtained. Details on the duration of the easement.
Address all requirements described in the Filing Manual of the National Energy Board, as well as the Interim Filing Guidance and Early Engagement Guide of the Canada Energy Regulator.
Clarity on the fees that could be collected by the proponent.
Clarity about the proponent's management system, and whether it will be based on recognized standards (e.g., ISO standards).
Clarification of disaggregated baseline data for demographic and socio-economic aspects, including gender, age and ethnicity, of communities along the proposed project route.
General — Project Description
Effects on federal lands, including the Port of Saguenay.
Effects on marine transportation in general, including the need for tugs, their home ports, the additional infrastructure required and the impacts related to their use on affected regions, including the Saguenay.
Use of complete and representative data to establish the baseline condition (condition before the project is carried out).
Use of the precautionary principle in the project.
Clarity on the fact that the Énergie Saguenay project is a proposed project, undergoing an environmental assessment.
Details on potential customers other than GNL Québec (Énergie Saguenay project).
Details on the number of wells to be constructed and operated each year to meet the main customer's request.
Details on the project's incidental activities such as the extraction method of natural gas in Alberta (hydraulic fracturing or conventional extraction) and marine transportation in the Saguenay, the Saint-Laurent and its Gulf for the transportation of natural gas to export markets.
Clarity on the possibility that substances other than natural gas may be transported via the pipeline and that the pipeline may be transformed into an oil pipeline. Details on the possibility that the natural gas transported in the pipeline may come from outside Canada.
Clarity on the addition of potential natural gas transportation services and details on the completion of this transportation (e.g. related pipelines connected to the main pipeline).
Clarity on the proposed project alignment, including detailed maps illustrating all project components, including roads, watercourses, Indigenous land and reserves, municipalities and administrative regions, Crown lands and agricultural components.
Clarity as to the surface area of Crown lands or public lands (federal and provincial lands) currently unused that will be used for the project. Specify whether the <i>Ontario Heritage Act</i> covers any lands.
Clarity on the energy demand for all the components of the project throughout its life cycle.
Details on the areas, locations and spacing of project components, including block valves, access roads and other areas affected by the installation of stations, substations, valves, power sources, transmission and other indirect activities generated. Details on the location of the operations control centre.
Clarity on the management of the soil that will be excavated when the pipeline is installed.
Clarity about the protected areas affected by the project, including the proportion of protected areas that are crossed by the corridor under study compared to the project's preferred planning area, and the need for buffer zones between the preferred planning area and these protected areas.

Details and distinction between the activities and studies that will be carried out in the study corridor compared to those that will be carried out in the preferred planning area.
Clarity on the appropriateness of the scale of the study corridor for the study of pipeline impacts and the criteria used to delineate it, including the extent of effects outside the proposed corridor.
Clarity on the type of watercourses crossed by the pipeline (e.g. river, permanent or intermittent stream), their location, planned crossing methods and whether they constitute fish habitat.
Clarity on the criteria that will determine the type of pipeline crossing in watercourses (under or in the watercourse), including clarification on the importance given to the economic aspect in the choice of crossing methods.
Clarity on the quantity of water required for the construction of the project.
Clarity on the criteria that will be used by the proponent to select the contractors and suppliers responsible for the construction and operation of the project and how and by whom the supervision of the contractors will be carried out.
Clarity on the criteria used by the proponent to select the types of materials for the construction of the pipeline, including coating and metering system.
Details on the method of burying the pipeline, cathodic protection and assembly methods, including the use of mechanical or chemical means and their effects on the environment.
Clarity regarding the proponent's quarrying needs throughout the proposed project route.
Clarity on the development of temporary sites (e.g., worker camp, storage areas, access road), including the location of these sites, their footprint, their environmental, social and economic effects and what will happen to them when construction is completed.
Clarity on the development of permanent access roads, including long-term environmental, social and economic effects.
Clarification of the work schedule and how it will be communicated to Indigenous peoples.
Clarity on the life of the project, particularly that of the gas pipeline.
Clarity on the decommissioning and closure measures that will be taken by the proponent and details on the site rehabilitation plans at the end of the project life, including access roads.
Clarity on the proponent's commitment to remove the pipeline from agricultural and forest land upon cessation of activities.
Clarity on the proponent's ability and financial strength to carry out its project over the long term, including consideration of potential ownership changes and resulting monitoring considerations.
Clarity on the proponent's plan, before the start of the project, to ensure the rehabilitation of the site in the event of bankruptcy or sudden termination of the project.
Clarity on the provision of funds for the removal of a pipeline from the ground under the jurisdiction of the Canada Energy Regulator.
General information — Impact Assessment Process
Conduct a comprehensive impact assessment of all facilities and activities related to the project (gas pipeline, natural gas liquefaction plant, hydroelectric power supply, marine LNG terminal and marine traffic) that considers the impacts of gas extraction until its final use.
Concerns about the consequences of two separate review processes for the pipeline and the liquefaction and marine export terminal facility on the resources available to government organizations and public agencies that will be involved in the impact assessment process.
Need to set up an independent expert committee that will be able to provide complete and objective information on the project to the public and Indigenous peoples.
Details on the different impact assessment processes applicable to the project and possible joint coordination or consultation mechanisms between the Agency and the following jurisdictions or processes: Canada Energy Regulator, Ministère de l'Environnement et de la Lutte contre les changements climatiques (or Canada-Quebec joint Review Panel), Ontario Pipeline Coordination Committee, Ontario Energy Board and the environmental assessment process under Chapter 22 of the James Bay and Northern Quebec Agreement.
Details on the proponent's targeted timelines for completing its Impact Statement, which is scheduled to be filed in the first quarter of 2020, including the steps that will allow it to complete the assessment of the project's impacts on Indigenous peoples.
Importance of scientific and social transparency and ethical conduct of the impact assessment process by all stakeholders.

Clarity on the laws and regulations to be complied with and the authorization that must be obtained before the project is carried out, as well as the authorities responsible for making the final decision on the project. Details on the feasibility of the project schedule proposed by the proponent in relation to the scope of the project and the requirements of the <i>Impact Assessment Act</i> .
Clarity on how the issues raised after the development of the summary of issues will be considered in the impact assessment process.
Clarity on the scope of the project to be assessed by the Agency and other regulatory jurisdictions (components and activities that will be included in the impact assessment process)
Consider the project in relation to a strategic climate change assessment and how it would be integrated into the project's impact assessment.
Inclusion impact analysis on a regional scale.
Vulnerable population groups (GBA+)
Effects on future generations.
Effects on the civil rights of the population.
Effects on vulnerable population groups (GBA+) such as women, children, persons with disabilities, seniors and youth and details of the consultation activities that will be undertaken by the proponent to reach these population subgroups.
Effects on the safety of Indigenous women due to the influx of workers into communities.
Effects on youths' fundamental rights to life and security, including environmental security.
Effects on the quality of life of residents of local communities affected by the project, such as the Saguenay-Lac-Saint-Jean region, including population growth, unemployment rate, average housing prices, household incomes, cost of living and planning services for the aging population, and diversification of the regional economy.
Effects on access to services, including public services (e.g. health, community, etc.) for the different population groups affected by the project.
Clarification of the steps already taken and to be undertaken to conduct a GBA+ that includes the specific characteristics of Indigenous peoples.
Clarity about the segments of the population that will benefit from or be affected (directly or indirectly) by the project, such as information on indigeneity (being an Indigenous person), religion, education levels, employment level, disability or accessibility, etc.
Consideration of the effects of gender equality and inclusion issues in all the elements considered by the proponent during the impact assessment process and throughout the project's life cycle, from planning to decommission.
A consultation approach that includes ensuring that barriers to the participation of underrepresented local groups are taken into account in consultation activities.
Marine Mammals
Effects on marine mammals, including beluga whales, right whales, dolphins and seals, due to project activities that alter, disrupt or destroy their habitat and cause noise pollution and collisions, including marine transportation in the Saguenay, the Saint-Laurent and its Gulf.
Mitigation Measures, Follow-up, and Monitoring Programs
Clarity on the application of the Law with respect to follow up and monitoring, including air and water quality requirements.
Appropriate mitigation measures for the components they are intended to protect and that take into account cumulative effects.
Mitigation measures for impacts on fauna and flora that encompass all affected ecosystems and not only species with legal protection status.
Mitigation measures related to carbon offsetting or carbon neutrality of the project.
Mitigation measures for operators of commercial vessels crossing the Saguenay River.
Mitigation measures related to habitat connectivity and species circulation.
Mitigation measures related to the protection of surface water in the various watersheds crossed by the proposed project.
Mitigation measures related to integrated resource and land management, including logging requirements to limit impacts on sensitive species.
Erosion control mitigation measures tailored to the ecological regions of the proposed project route.

Mitigation measures to prevent all-terrain vehicles and snowmobiles from entering the corridor created by the pipeline right-of-way.
Mitigation measures relating to long-term agreements or leases, binding on any potential project owner, to clarify the possible compensation or indemnities granted to farm owners whose activities would be affected by the pipeline.
Mitigation measures related to the burial of the pipe to allow the free circulation of agricultural machinery.
Mitigation measures related to the construction period to limit the overbidding of local resources and restrict the contribution of non-permanent external resources to the region to promote local economic benefits.
Mitigation measures that take into account vulnerable population groups, including measures to prevent sexual harassment and gender-based violence.
Mitigation measures related to impacts on Indigenous peoples, their rights and their social, health and economic conditions.
Involvement of Indigenous peoples in the development and implementation of environmental protection and emergency response plans, including training and related communication strategies. Consideration of existing services in Indigenous communities.
Mitigation measures related to monitoring involving Indigenous peoples, the proponent and relevant federal and provincial jurisdictions.
Details on the effectiveness and possible alternatives for the proposed mitigation measures.
Mitigation measures to ensure that complaints are received and managed in a timely manner through the establishment of a committee by the proponent.
Monitoring of mitigation measures, follow-up and monitoring programs by independent inspectors.
Wetlands, Forest and Agricultural Areas
Effects on wetlands, water and forests, including old-growth forests and improved management areas, on the overall health of these areas, their ecological functions and resident species attributable to the construction of project components.
Effects on native plants, including their cutting and the risk of the spread of invasive plant species.
Cooperation with Indigenous peoples to select plant species that should be planted along the proposed project route after the construction phase.
Details on the methods used for deforestation, mechanical or chemical clearing and maintenance of the proposed project route and rights of way, including effects on human and animal health, ecosystems, biodiversity and species of cultural value.
Details of the wetland and water loss compensation project(s) in order to respect the principle of zero net loss of wetlands and water.
Details on how the proponent will compensate for the loss of wetlands and comply with Quebec's <i>Loi concernant la conservation des milieux humides et hydriques</i> .
Navigation
Effect on navigation on navigable waters, as defined in the <i>Canadian Navigable Waters Act</i> , attributable to activities during the construction phase.
Effects on public and Indigenous peoples' navigation, including activities that impede or limit access to waterways (e.g. portage routes, access roads and places of tourist interest).
Effects on sustainable navigation in the Saguenay River.
Birds, Migratory birds, and their Habitats
Effects on birds, including migratory birds due to loss, fragmentation and temporary or permanent alteration of habitat and disruption of traffic corridors.
Effects on birds, including migratory birds, of individual mortality and the destruction of nests and eggs or any other structure necessary for reproduction and survival, including effects on their reproduction, migration and wintering.
Effects on migratory birds of collision risks with vehicles or infrastructure related to the project.
Effects on migratory birds and their habitats of accidental oil or chemical spills.
Clarity on species for which vegetation control activities would create new habitats.
Details on the proposed compensation measures, at all stages of the project life cycle, for migratory birds to continue to use the territory during their migration.
Indigenous Peoples — Health Conditions

Effects on the physical and psychological health of Indigenous peoples, including through their land use in relation to the proposed project route.
Effects on the physical and psychological health of Indigenous peoples of contaminants in water, air or soil that can be absorbed in food trapped, fished, hunted, harvested or cultivated for subsistence or medicinal purposes.
Need to choose social health indicators adapted to the specificities of Indigenous communities.
Indigenous Peoples — Economic Conditions
Effects on the economic conditions and economic well-being of Indigenous peoples, including economic development, employment and business opportunities for Indigenous peoples.
It is important to identify the specific characteristics of the economic situations of Indigenous communities in each region when describing the economy of administrative regions.
Clarity on how Indigenous peoples will benefit from local economic spinoffs generated during the construction and operation phases, including the hiring of local labour, contract award, potential use of gas for the needs of Indigenous communities, opportunity to participate in tenders, etc.
Clarity on the compensation that will be granted to Indigenous peoples for the loss of territory.
Details on business partnerships with Indigenous communities planned for the long term (at least 25 years).
Details on existing economic activities among Indigenous peoples and how they are taken into account in the development of the project, including how they have been taken into account in the development of the proposed project route.
Details on planned investments in the economic and social development of Indigenous peoples.
Details on how Indigenous peoples will be informed of the calls for tenders.
Training of Indigenous people interested in participating in the project.
Indigenous Peoples — Social Conditions
Effects of the jobs created by the project on the social life and cultural well-being of Indigenous peoples, including the social consequences of the arrival of temporary workers and limited-term jobs for the community.
Effects on the well-being of Indigenous peoples resulting from environmental effects.
Effects of the increased demand for community services on Indigenous peoples already living in poverty.
Concerns that the project may affect the social cohesion of members of Indigenous communities.
Effects on the social conditions of Indigenous peoples and how the project could contribute to their transformation, taking into account sparsely populated areas that are conducive to the exercise of Indigenous peoples rights.
Indigenous peoples — Consultation and Engagement
Government of Canada's duty to consult with Indigenous peoples.
Details on the powers and responsibilities, affirmed or recognized, of Indigenous peoples with regard to the conduct of impact assessment.
Details on how the provisions of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) will be considered in the consultation process.
Meaningful engagement of Indigenous peoples to obtain their free, prior and informed consent before undertaking any project-related activities.
Consideration of Indigenous peoples' individual engagement and consultation preferences throughout the assessment process, including language preferences and consultation with the broader community and not just band councils.
Clarity on the capacity funding provided by the proponent to support Indigenous peoples' participation in the consultation.
Significant, early and ongoing mobilization of Indigenous peoples by the proponent and the Agency during all phases of the project: planning, construction, operation (including equipment maintenance) and site rehabilitation. Consultations that will provide a comprehensive list of concerns raised and will result in concrete actions to address these concerns.
Need to establish a detailed communication plan for all phases of the project assessment and the entire life of the project.
Details on the maintenance of the proponent's consultation files, including evidence of information, correspondence and mobilization of Indigenous communities regarding the development of the project and the development of an associated consultation plan.
Details on the criteria that were used by the proponent to determine which Indigenous communities were consulted.

Capacity for Indigenous peoples to actively participate in the impact assessment process, with access to documents to be revised within a reasonable timeframe and for a reasonable period of time, in both official languages.
Details on how the Agency's "Interim Guidance: Indigenous Participation in Impact Assessment" will be considered.
Details on the division of responsibilities between the proponent and the Crown (provincial and federal) for consultations and protection of the rights of Indigenous peoples potentially affected by the project.
Details on the process for recruiting Indigenous partners for project development, such as hiring workers for field inventories, including measures taken to ensure the participation of individuals representing the interests of the Indigenous peoples consulted.
Integration of the tools developed by the communities (organizational processes, rights impact assessment tools, information and human resources, etc.) into the consultation and impact assessment process.
Details on the two parallel consultation processes carried out simultaneously for non-Indigenous and Indigenous populations.
Distinction between consultation activities and discussions aimed at developing economic opportunities in communities.
Concern about launching the 180-day planning phase of the impact assessment before consultation agreements are developed with Indigenous peoples.
Indigenous peoples — Rights
Impacts on the rights of Indigenous peoples protected under section 35 of the Constitution, including modern treaty rights (such as the <i>James Bay and Northern Quebec Agreement</i>).
Effects on the treaty, unceded or subject to a land claim lands of Indigenous peoples, including those straddling Ontario and Quebec. Details on the size (hectares) of affected Indigenous territories, occupied and unoccupied, based on project components.
Effects on Indigenous territories where natural gas will be extracted and transported in the pipeline.
Effects of the conversion of unoccupied Crown land into occupied Crown land on the availability of land for use by Indigenous peoples and details of the area or percentage of traditional territories used based on the available territories.
Collaboration with Indigenous peoples in assessing the impacts on their rights and in choosing the preferred approach to achieve the assessment, and details on the expertise and capacity that will be available to Indigenous peoples for this purpose.
Clarity on the proponent's commitment and the Crown's commitment to mitigate and accommodate the impacts on the rights of Indigenous peoples and details of the process that will help identify and implement appropriate actions, including the review of commitments advancing reconciliation.
Clarity on the involvement of Indigenous peoples in decision-making for the granting of land access rights to the proponent.
Clarity on the distinction between Indigenous communities, lands used for traditional purposes by Indigenous peoples and lands covered by a comprehensive land claim or self-government agreement.
Details on how the proponent and the Crown will involve Indigenous peoples in decision-making throughout the life of the project.
Details on the process by which free, prior and informed consent will be obtained from Indigenous peoples.
Details on the easements required for the pipeline and facilities so that Indigenous peoples can assess the rights to be granted should the project be approved.
Indigenous peoples — Knowledge
Consideration of Indigenous knowledge in the broad sense and not only of so-called "traditional" knowledge.
Details on the components of the project that were developed in collaboration with representatives of Indigenous peoples or in light of Indigenous knowledge, including details of the consultation process that led to the choice of the proposed project route. Details on how Indigenous knowledge studies will inform the impact statement and project development for each stage of the project life cycle.
Inability to compare Indigenous knowledge with natural science knowledge and to ensure that the two types of knowledge are mutually enriching if the species against which the effects are assessed are not the same for the proponent, legislator and Indigenous peoples.
Clarity on how Indigenous knowledge will inform the establishment of acceptability thresholds for effects on valued components and cumulative effects.

Details on how Indigenous peoples with expertise in environmental protection, particularly species at risk, will be involved in the studies required during the various phases of the environmental impact statement.
Indigenous peoples — Physical and Cultural Heritage
Effects on Indigenous cultural heritage, including archaeology.
Need to conduct archaeological inventories in areas of archaeological potential before construction begins, to share the schedule of these exercises with Indigenous peoples and to encourage their participation. Details on the possibility of having members of Indigenous communities on site during this work.
Details on how the historical context, toponymy, language and all the other elements that make up a culture will be integrated into the heritage study.
Details on visual disturbances and measures taken to limit impacts on the landscape.
Protection of burial sites in the preferred planning area.
Indigenous peoples — Current Use of Lands and Resources for Traditional Purposes
Effects on traditional practices of Indigenous peoples due to increased risk of accidents and malfunctions and land encroachment.
Temporary or permanent effects on the traditional practices of Indigenous peoples such as trapping, hunting, fishing, gathering (traditional plants, medicines, etc.), including the deterioration of wetlands and forests that support these practices for all phases of the project, and impacts of these effects on cultural well-being and the ability to hand down knowledge between generations.
Effects of increased use of the territory by people from outside the communities on accessibility to the territory and on the components valued by Indigenous peoples.
Effects on traditional practices of Indigenous peoples such as hunting on traplines and effects on family hunting and fishing territories along the proposed project route.
Effects on traditional land use by future generations.
Effects on species of special interest to Indigenous peoples, but not listed as threatened or vulnerable (such as moose, beaver, bear, small game and blueberries).
Consideration of periods of land use by Indigenous peoples in the development of construction, maintenance and rehabilitation schedules for the site.
Avoidance of some preferred areas due to landscape changes and concerns about site safety or contamination of country food.
Effects on access to Indigenous peoples' land in the study corridor area.
Fish and Fish Habitat
Effects on fish and fish habitat, including water quality, stream morphology and dynamics, disturbance, alteration or destruction of fish habitat and eggs, or fish death. This includes the alteration or destruction of sensitive habitats (spawning, breeding, etc.) in the medium and long term.
Effects on fish mortality in the pre-construction and construction phase due to geophysical survey activities, the use of explosives and fish dragging during water pumping.
Effects on fish habitat, particularly because of potential risks to the survival of plants, invertebrates and insects.
Effects on fish health, diet and offspring.
Effects on fish population movement and migration patterns.
Effects on fish-free circulation during the construction phase, depending on the watercourse crossing methods chosen or the potential culverts to be used.
Effects of the spread of invasive aquatic species.
Effects on aquatic wildlife, including Atlantic salmon, Greenland halibut and polar cod, due to project activities that alter, disrupt or destroy their habitat, including marine transportation in the Saguenay, the Saint-Laurent and its Gulf.
Details on the number of watercourses affected their locations and the effects on the fauna and flora present in these watercourses, including the Saint-Maurice River upstream of the Rapide Chaudière.
Clarification of the concepts of "temporary" and "longer-term" duration of anticipated changes and degradations to the aquatic environment as described in the initial project description.
Details on the reversibility or non-reversibility of predicted changes to the aquatic environment.
Details on the planned measures and time scale to control sediment yields to watercourses during watercourse crossing works, as well as details on the planned measures in the event of contamination of watercourses as a result of abnormal sediment yields.

Public Consultation Process
Ability for the public to actively participate in the impact assessment process, including those who can only do so in one of the two official languages.
Details on the proponent's planned consultation activities for the general public (other than landowners, residents and users in the vicinity of the proposed project).
Public hearings held by the Agency.
Clarification of the definition, role and issues of each "stakeholder", including organizations included in socio-economic groups and agricultural and forestry producers.
Non-Indigenous consultation approach, similar to what has been developed for Indigenous people.
Concerns about the length and method of announcing public comment periods, including the late public notification of the comment period on the initial project description. Questioning on the clarity of the objectives of the public consultation and the relevance of the reference documents provided.
Concerns about the impact of two separate review processes for the pipeline and the liquefaction and marine export terminal facility on the effectiveness of public participation, including consideration of consultation fatigue.
Easy access to the Canadian Impact Assessment Registry (the Registry) for the public, including the need for social media authentication, and comment postings format.
Communication approach with the public, including cottagers and forest workers, during the construction phase.
Purpose of and Need for the Project
Rationale of the project in relation to social acceptability and the needs of society.
Rationale of the project in relation to its potential effects on ecosystems.
Rationale of the project in relation to energy demand and the climate impacts of that demand.
Rationale of the project in the context of the current climate crisis, efforts to combat climate change and the need for a transition to green and renewable energy, including the validation of the proponent's assumption that gas could replace more polluting energy. Consideration of the possibility that international markets will significantly reduce their demand for fossil fuels in the coming years.
Rationale of the project and its viability in relation to an assessment of the expected economic benefits and environmental cost, including long-term cost.
Rationale of the project and its viability in relation to natural gas demand, including an assessment of global natural gas demand during the project's operating years (2024 to 2049). Consideration of the potential context of a global decline in natural gas demand and the decline in renewable energy prices.
Use of renewable energy to make fossil energy more accessible.
Rationale of the project in relation to a questioning on the need to build a pipeline in the east of the country considering the proximity of natural gas extraction sites in Western Canada to the Pacific Coast and Asian markets.
Clarity and justification of the amount of hydroelectric energy used by the liquefaction facility.
Clarity on the calculation in the assessment of global natural gas demand during the project's operating years (2024 to 2049).
Human Health and Well-Being
Effects on human health (physical and psychological) and the well-being of the local population due to the implementation of this project.
Effects on human receptors due to construction activities that will cause disturbance such as noise and vibration and changes in air quality, water quality and quality of country food.
Effects on human health, including noise from blasting, machinery use and increased traffic, based on schedule, time and duration of construction.
Effects of project-related activities on human health, including hydraulic fracturing.
Effects on human health attributable to emissions of sulphur dioxide, nitrogen oxides and particulate matter.
Effects of socio-economic impacts on human health associated with temporary worker camps.
Effects of gender-based violence, spread of sexually transmitted infections and human trafficking due to the influx of male workers into communities.
Details on the emission of odours perceived by humans and animals from natural gas.
Soils, Geology, Geochemistry and Geological Hazards
Effects on soils, including loss of quality, quantity, compaction and erosion, taking into account, among other things, the shallowness of soils in the proposed project area.

Effects on soil stability, increased erosion and soil chemistry.
Effects of seismic events, landslides and terrain hazards on project activities. Identification of risk areas for geological hazards.
Effects on geological and seismic hazards due to project-related activities such as hydraulic fracturing for natural gas extraction.
Consideration of the characteristics of the soil crossed by the pipeline, including the type of soil (e.g., clay soils in Abitibi), its condition (e.g., frozen ground) and its location (e.g., under watercourses) to assess the effects of a methane leak on the soil and environmental integrity along the proposed project route.
Clarity on the nature of formations and surface deposits and the depth to which the pipeline will be put in place.
Clarity on the codes or good practice guides that will be used when analyzing the effects of earthquakes on the pipeline.
Clarity on the underground vibrations caused by the transportation of natural gas in the pipeline.
Structure, Site, Things of Historical, Archaeological, Paleontological or Architectural Significance
Effects on archaeological sites and sites of potential and known ecological and historical importance of the region, including the Fur Route and the Dassera-Kanasuta area.
Alternatives to the Project and Alternative Means of Carrying Out the Project
Potential alternatives to the project or its implementation.
Consideration of transportation of alternative sources of green rather than fossil energy, such as ammonia rather than fossil fuels, taking into account potential uses of by-products and development of the ammonia facility.
Options or scenarios in which the purpose of the Énergie Saguenay project would be changed.
Economic variants that include implementing the project using natural gas from the United States rather than from Western Canada.
Assessment of all technically and economically feasible options, including the use of best available technologies and alternatives for the use of electric turbines for compressor stations.
Clarity on the advantages and disadvantages of a pipeline for transporting natural gas, including in terms of safety, accidents and malfunctions.
Clarity on the proponent's criteria for determining the proposed project path to minimize the environmental impact, including bedrock, local population, wildlife and ability to respond in the event of accidents and malfunctions.
Consideration of alternative route options that avoid streams and wetlands, including those considered in the ongoing environmental assessment for the Énergie Saguenay project.
Alternative routes options avoiding private land owned by farmers and foresters in determining the selected route, including the technical and regulatory reasons that prevent this avoidance, if any, particularly for the Domaine-du-Roy and Lac-St-Jean-Est Regional Municipality Counties.
Alternative route option through the regions of Lebel-sur-Quévillon and Chapais-Chibougamau, which already include existing infrastructure and industries that can benefit from it.