Bureau d'audiences publiques sur l'environnement Joint Review Panel

— Main Report

Report 241

Rabaska Project — Implementation of an LNG Terminal and Related Infrastructure

TRANSLATION

Inquiry and Public Hearing Report

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Opinions and recommendations

In its report and based of its analysis, the Panel sets forth a certain number of opinions and recommendations that are presented hereafter. The ready should nonetheless refer to the context in order to fully appreciate their significance and scope.

Project energy context

Opinion 1 — The Panel is of the opinion that the establishment of LNG facilities in Quebec would represent a diversification of its natural gas supply and would have the effect of reinforcing its energy security \rightarrow p. 76

Opinion 2 — In the Panel's judgement, the carbon dioxide emissions reduction commitments under the Kyoto protocol allow increases by sector, when the situation justifies it, inasmuch as the overall reduction objective is achieved by compensatory reductions in other sectors of the economy such as transportation or by the adoption of proportional compensation measures aimed to counter these increases. \rightarrow p. 83

Opinion 3 — The Panel is of the opinion that the system of emission charges set forth in Quebec's Climate Change Action Plan 2006-2012 would ensure the potential advantages of substituting high carbon content fuels with natural gas. → p. 84

Economic context of the project

Opinion 4 — The Panel is of the opinion that the additional supply of natural gas proposed by the project could result in a relative reduction in price on the Quebec market. \rightarrow p. **86**

Recommendation 1 — The Panel recommends that the proponent establish a regional committee with the mandate to establish a strategy in an aim to maximize the project's economic spinoffs for the Chaudière-Appalaches region. \rightarrow p. 90

Recommendation 2 — If the project is approved, the Panel recommends that the City of Lévis take the necessary measures so that the project can have the maximum structuring effect for the economy of the region and for industrial development. \rightarrow p. 91

Territorial context of the project

Recommendation 3 — If the project is authorized and in order to attract companies that must be physically in proximity to the project's installations,, the Panel recommends that in its land use planning and development plan now being revised, the City of Lévis designates for industrial use of the land adjacent to the project. The Panel also recommends that the City of Lévis include this land in the

request for exclusion that it will address to the Commission de protection du territoire agricole du Québec. \rightarrow p. 106

Opinion 5 — The Panel is of the opinion that the utility corridor and particularly the access road to the jetty would create a visible fracture in the Ville-Guay cliff, in the absence of mitigation measures capable of diminishing the visual impact. → p. 111

Opinion 6 — The Panel is of the opinion that, even if visual simulations were not produced from the public access points on the river, the visual experience of residents and visitors to these spots would be modified by the project. → p. 112

Opinion 7 — The Panel is of the opinion that the project's port and on-shore facilities and the infrastructures cutting through the cliff would impair the landscape on the coast of Beaumont. \rightarrow p. 114

Recommendation 4 — If the project is to be carried out, the Panel recommends that within the framework of, and during, the current environmental assessment, the proponent take all measures necessary to ensure the best possible integration of the port and on-shore facilities in the landscape, particularly the access road to the jetty. \rightarrow p. 114

Assessing the risks related to the project

Opinion 8 — Considering the characteristics and goals of the probabilistic and deterministic analyses when assessing risks, the Panel is of the opinion that the approach used by the proponent is the one recommended and largely used in this field. \rightarrow p. 119

Opinion 9 — The Panel is of the opinion that the planning of emergency measures should take into account a more precise demographic characterization of sensitive elements in the built environment inside the isocontour corresponding to a 3-kW/m² thermal radiation criterion. → p. 129

Recommendation 5 — The Panel recommends that, when planning emergency measures, the proponent should provide Environment Canada and the ministère du Développement durable, de l'Environnement et des Parcs with an analysis of sensitive elements when considering an accident scenario for a berthed LNG tanker, on the basis of criteria using a 1,500-mm breach, a steady-state pool and a $3-kW/m^2$ thermal radiation threshold. \rightarrow p. **149**

Opinion 10 — To plan emergency measures regarding the pipeline, the Panel is of the opinion that the proponent should pay special attention to public gathering places such as campgrounds in the impact area within the 3 kW/m^2 thermal radiation limit. $\rightarrow \text{ p. } 160$

Opinion 11 — The Panel is of the opinion that the risk assessment carried out for the project was methodologically in compliance with industry and standard practices, which are recognized in the field.

The conclusions of this assessment were also compatible with the known history of the liquefied natural gas industry regarding security, for both the maritime and on-land aspects. On this basis, the Panel deems the risks associated with the project to appear acceptable. \rightarrow p. 163

Opinion 12 — The Panel is of the opinion that the structural characteristics of liquefied natural gas land facilities and LNG tankers, as well as their inherent security measures, make them little vulnerable as targets for terrorist groups, and less likely to offer the consequences usually sought in terms of damages, visibility and socio-political impacts. \rightarrow p. 168

Opinion 13 — The Panel is of the opinion that, should the project be implemented, the Comité mixte municipal-industriel of the City of Lévis should offer representatives of the MRC de L'Île-d'Orléans and of the MRC de Bellechasse the possibility of taking part in the committee's proceedings. → p. 169

Recommendation 6 — Should the project be implemented, the Panel recommends that the proponent set up a yearly public information mechanism regarding the project's operational security report, for individuals who could be affected by accidents involving the project's facilities. → p. 169

Opinion 14 – The Panel is of the opinion that, should additional needs for fire security, public security and emergency measures planning prove necessary for the Municipality of Beaumont, the proponent must cover these costs. → p. 170

Social acceptance of the project

Opinion 15 — The Panel is of the view that in the area of risk, the safety history of the liquefied natural gas industry weighs in favour of the project's safety. → p. 175

Recommendation 7 — The Panel recommends that the Canadian Environmental Assessment Agency and the ministère du Développement durable, de l'Environnement et des Parcs give greater weight to psychosocial impacts in the guidelines that they issue for projects that present potential risks for neighbouring communities aiming at a better assessment of this category of impacts. → p. **179**

Impacts on the inhabited area and human activities

Recommendation 8 — Beyond the measures proposed by the proponent for the purpose of noise mitigation, the Panel recommends that the proponent avoid, as much as possible, the execution of noisy work between 7 p.m. and 7 a.m., and that the work schedule be planned on the basis of this consideration. \rightarrow p. **185**

Recommendation 9 — The Panel recommends that the proponent take steps to prevent exceeding the criteria of the ministère du Développement durable, de l'Environnement et des Parcs by reducing the number of noise events and their intensity at the source. When that is not enough, the proponent should reduce the spread of residual noise by taking effective anti-noise measures, or by planning measures to compensate residents. → p. 185

Opinion 16 — The Panel is of the opinion that the proponent will take the necessary steps to limit the impacts of noise in residential areas during construction and operation of the gas pipeline. → p. 186

Recommendation 10 — If the project is authorized, the Panel recommends that the proponent take the steps necessary to ensure that sulphur dioxide emissions from the project meet the standards applicable in Quebec, especially in the part of Ville-Guay that overlooks the jetty. This should include the use of diesel fuel containing the lowest amount of sulphur.

p. 192

Recommendation 11 — The Panel recommends that the proponent ensure a proper follow-up, after reaching agreement with the ministère du Développement durable, de l'Environnement et des Parcs with the purpose of assessing the true level of additional air pollutants from the project compared to existing levels within the area currently retained for the planned project. \rightarrow p. **194**

Recommendation 12 — The Panel recommends that the ministère du Développement durable, de l'Environnement et des Parcs add a new sampling station to its network to show air quality in Lévis. If the project goes ahead, the Panel recommends that the proponent establish a monitoring station in the inhabited area between the jetty and Highway 132 together with the ministry.

p. 194

Recommendation 13 — The Panel recommends that the data collected from air quality samples taken at the monitoring station operated by the proponent in the inhabited area most exposed to the project's emissions be analyzed in concert with the ministère du Développement durable, de l'Environnement et des Parcs. Sources of recurring exceedances that go beyond the Québec standards in force must be corrected to the ministry's satisfaction. → p. 194

Recommendation 14 — The Panel recommends that the proponent establish a procedure for communications on conditions governing the clearance of transmission lines and the measures to be taken for passage of LNG tankers in the case of restrictions on overhead clearance under the line, and that this be done after agreement with Hydro-Québec, Transport Canada and the Canadian Coast Guard. \rightarrow p. 197

Opinion 17 — The Panel is of the opinion that the presence of the LNG terminal is not likely to have a significant impact on the movements of non motorized crafts. → p. **198**

Project impacts on wooded areas

Recommendation 15 — In order to avoid a net loss of wildlife habitats, the Panel recommends that the proponent prepare a compensation plan for deforested areas located in the terminal area and in areas of similar value, to the satisfaction of the ministère du Développement durable, de l'Environnement et des Parcs (MDDEP) and the ministère des Ressources naturelles et de la Faune.

→ p. **200**

Opinion 18 — Considering the biological quality of the plantations affected by the project and the fact that they benefited from public funding, the Panel believes that the proponent should find ways to compensate the public funds invested in these plantations, subsequent to an agreement with the ministère des Ressources naturelles et de la Faune. → p. 200

Recommendation 16 — The Panel recommends that the proponent assess the cumulative environmental effects of the two projects related to his own, i.e. the two power distribution lines and the access road leading to the terminal as regards the extent of deforestation required. \rightarrow p. 204

Project impacts on water environments

Recommendation 17 — The Panel recommends that the proponent develop a management plan that would ensure the maintenance of an acceptable flow rate in the ruisseau Saint-Claude and the integrity of the refuge pond. This management plan should be to the satisfaction of Fisheries and Oceans Canada, the ministère du Développement durable, de l'Environnement et des Parcs and the ministère des Ressources naturelles et de la Faune, and should cover the terminal construction, operation and abandonment phases.

p. 204

Recommendation 18 — Should the project be carried out, the Panel recommends that the proponent take measures to reduce the temperature of vaporizer discharge before it reaches the river so as to minimize the impacts on fish habitat. \rightarrow p. 208

Recommendation 19 — The Panel recommends the characterization of vaporizer discharge as well as a periodical follow-up of its compliance with the Environmental Discharge Objectives and toxicity tests on aquatic life, to the satisfaction of Environment Canada and the ministère du Développement durable, de l'Environnement et des Parcs. — p. 208

Recommendation 20 — The Panel recommends that, subject to an agreement with Fisheries and Oceans Canada and the ministère des Ressources naturelles et de la Faune, the proponent determine the water supply sources for the hydrostatic tests on the pipeline pipes and this, at the environmental assessment phase. This choice should comply with the minimum ecological instream flow regimes of the bodies of water concerned. If needed, mitigation or compensation measures should be taken to reduce impacts on fish habitat.

p. 209

Recommendation 21 — Noting the fact that the proponent committed himself to producing an inventory of the wells located within the influence perimeter where they would be likely to undergo a drawdown exceeding 0.5 m, the Panel recommends that wells be inventoried and groundwater characterized before construction work begins. Characterizing the groundwater would enable to establish its current physicochemical and microbiological quality to better assess the potential impacts of construction and operation of the terminal. \rightarrow p. 210

Opinion 19 — Although the project may have impacts on groundwater, the Panel believes that it is not likely to cause significant adverse environmental effects on the ability to meet the potable water supply

needs of citizens living within the influence perimeter. This takes into account the mitigation, compensation and follow-up measures that would be implemented by the proponent. → p. 210

Project impacts on wetlands

Recommendation 22 — Noting the mitigation measures put forward by the proponent, the Panel recommends that the latter conduct additional geological studies in order to confirm the groundwater behaviour and the existence of potential links between the groundwater body, the peat bog located north-east of the site, the refuge pond and the ruisseau Saint-Claude.

p. 211

Recommendation 23 — The Panel recommends that the peat bog be preserved from backfilling by removing the planned concealment berm from the project. The Panel also recommends that any residual loss be compensated, in compliance with the guidelines provided by the ministère du Développement durable, de l'Environnement et des Parcs, to authorize work on an ombrotrophic or minerotrophic peat bog. → p. 211

Recommendation 24 — The Panel recommends that the proponent study the possibility of modifying the H-I stretch of the route for the pipeline to avoid the Saint-Étienne-de-Lauzon peat bog. If avoiding it is impossible, the Panel recommends that the proponent conduct the required inventories, assess the potential use of this sector by protected animal and plant species and analyze the work's impacts on wetlands. If necessary, mitigation, compensation and follow-up measures should be planned, in compliance with the guidelines of the ministère du Développement durable, de l'Environnement et des Parcs for work to be authorized on wetlands.

p. 212

Project impacts on fish and their habitats

Recommendation 25 — The Panel recommends that, additional measures be taken when a spawning area for the rainbow smelt is present in the jetty area in order to avoid disrupting the species, to the satisfaction of Fisheries and Oceans Canada and the ministère des Ressources naturelles et de la Faune.

p. 214

Recommendation 26 — The Panel recommends to the ministries concerned to keep in mind the technical feasibility of the directional drilling as a criterion in the final choice of a pipeline route for the rivières Etchemin, Chaudière and Beaurivage crossings.

p. 216

Opinion 20 — Insofar as fish habitat losses or disruption caused by the project are compensated and by means of the appropriate mitigation measures, the Panel believes that the project is not likely to cause any significant environmental impacts on fish habitat. → p. 216

Recommendation 27 — The Panel recommends that the proponent's compensation project for fish habitat losses and disruptions be submitted to Fisheries and Oceans Canada within the present environmental assessment. \rightarrow p. 216

Project impacts on avian fauna

Recommendation 28 — The Panel recommends that Environment Canada and the ministère des Ressources naturelles et de la Faune ensure the effectiveness of the mitigation measures suggested by the proponent with regard to avian fauna. \rightarrow p. 217

Project impacts on protected plant species

Recommendation 29 — Given the protection statuses of the fringed gentian, Victorin variety, and the spotted water-hemlock, Victorin variety and the threat facing their habitats, the Panel recommends that the proponent take measures to protect the individuals of theses species and their habitats if he develops a crossing over the bank for small craft. These measures should be implemented following an agreement with the ministère du Développement durable, de l'Environnement et des Parcs. \rightarrow p. 220

Recommendation 30 — Considering the rich floristic quality of jetty area, the Panel recommends that the proponent compensate for the loss of protected species habitat for the entire area affected by the work. These measures should be assessed following an agreement with the ministère du Développement durable, de l'Environnement et des Parcs. → p. 222

Recommendation 31 — The Panel recommends that the ministère du Développement durable, de l'Environnement et des Parcs see to it that appropriate measures be taken to ensure the protection of individuals belonging to these protected species and their habitats. Transplantation should be considered only as a last resort. \rightarrow p. 222

Recommendation 32 — The Panel recommends that the ministère du Développement durable, de l'Environnement et des Parcs ensure that the proponent performs new inventories during the construction of facilities to ascertain the absence of two-leaved toothworts in the areas covered. In the case where two-leaved toothwort individuals would be recorded in the work area and transplantation would be the only conceivable option, the Panel recommends that the proponent develop a follow-up program to verify the success of the transplantation. \rightarrow p. 222

Recommendation 33 — Given the absence of data regarding the success potential of the transplantation of Platanthera blephariglottis, blephariglottis variety, the Panel recommends that the proponent develop a follow-up program following an agreement with the ministère du Développement durable, de l'Environnement et des Parcs. \rightarrow p. 223

Environmental monitoring and follow-up

Recommendation 34 — Noting that the proponent has planned to set up a Public Advisory Committee to conduct the follow-up on the project's environmental impacts, the Panel recommends that the entire set of mitigation measures be monitored. The proponent should also establish a liaison committee with the population in the area to ensure appropriate management of the disturbances during work, following an agreement with the City of Lévis, neighboring municipalities and community organizations.

→ p. **224**

Introduction

The Rabaska LNG terminal project and related infrastructure is subject to a federal environmental assessment under the *Canadian Environmental Assessment Act* (L.C. 1992, c. 37), which also has provisions for a public consultation process. It is also subject to the Quebec environmental impact assessment and review procedure as set out in Section 31.1 and subsequent sections of the *Environment Quality Act* (L.R.Q., c. Q-2) which also calls for public participation. In this context, the project undergoes a cooperative environmental assessment in accordance with the May 2004 *Canada-Quebec Agreement on Environmental Assessment Cooperation*, hereafter called the "Agreement". Among other provisions, this Agreement provides for the possibility of creating a joint public review panel for a project when required by federal and provincial authorities.

In April 2004, a project notification was submitted to the federal and provincial authorities by the Gaz Métro Limited Partnership for the Rabaska Limited Partnership that was not yet formed. On the recommendation of the four federal responsible authorities, namely the National Energy Board, Fisheries and Oceans Canada, Transport Canada, and the Canadian Transportation Agency, the Canadian Minister of the Environment decided on January 20, 2005, to submit the project to a federal panel under the Canadian Environmental Assessment Act. It should be noted that the National Energy Board then indicated that it was no longer a responsible authority for this environmental assessment.

In turn, after having decided that the impact statement was receivable, the Minister of Sustainable Development, Environment, and Parks, Mr. Claude Béchard, gave the Bureau d'audiences publiques sur l'environnement (BAPE) the mandate to make public the environmental impact study and to hold a public information and consultation period from October 10 to November 24, 2006. During this period, fifty requests for a public hearing were addressed to the Minister (Appendix 1). On October 19, 2006, the Minister gave the BAPE the mandate to hold a public hearing on the project under Section 31.3 of the *Environment Quality Act*. He also asked the BAPE to establish a joint review panel with the Government of Canada if circumstances warranted it.

The President of the BAPE thus created the BAPE commission on October 23, 2006, with the responsibility of reviewing the project and he appointed two members from this commission to be members of the joint review panel, as provided for in the Agreement. The appointment of these two members was then approved by the

Canadian Minister of the Environment, Ms. Rona Ambrose. The federal panel member who joined the joint review panel was appointed by both Canada's Minister of the Environment and by the president of the BAPE in November 2006. At the end of this process, the Minister of Sustainable Development, Environment, and Parks approved the appointment of the three members of the joint review panel (CR2.1, CR2.2, CR2.3).

The joint review panel completed its work at the same time as the BAPE commission in compliance with the BAPE *Rules of Procedure relating to the conduct of public hearings* [Q-2, r. 19]. As provided for in the Agreement, it was decided to produce a joint report. In order to simplify the text, the BAPE commission and the joint review panel will be designated as the "Panel" in the rest of this report.

The Panel's mandate began on December 4, 2006. At the first part of the public hearing, fourteen sessions were held from December 6 to December 15, 2006, in the cities of Québec and Lévis, to allow the proponent and resource people from various departments and agencies to answer questions from the public and the Panel. The second part of the public hearing enabled participants to express their concerns and their opinions about the project during twenty sessions that were held from January 29 to February 12, 2007, in Lévis and Saint-Pierre-de-L'Île-d'Orléans. A total of 699 briefs were received in addition to more than fifteen oral presentations (Appendix 1).

Project Description

The Rabaska Limited Partnership, comprising Gaz Métro, Enbridge, and Gaz de France, proposes to build an LNG terminal on the south shore of the St. Lawrence River to the northeast of Lévis, in the sector known as Ville-Guay (Figure 1). This terminal would enable the import of liquefied natural gas (LNG) that would be regasified and then transported by pipeline to the inter-provincial natural gas pipeline grid operated by Trans Quebec Maritime (TQM) to be sold on the Quebec and Ontario markets.

The LNG terminal would consist of various components (Table 1 and Figure 2), including a maritime jetty reaching out about 500 m into the river that would comprise features including a rockfill platform and berthing wharf equipped with deflecting dykes. This jetty could receive LNG tankers with a capacity ranging from 65,000 m³ to 160,000 m³. The proponent is also assessing the possibility of receiving Qflex model LNG tankers, whose capacity reaches 216,000 m³. The annual LNG supply is estimated to be the equivalent of 60 LNG tankers with a capacity of 160,000 m³.

The terminal would also comprise a service corridor and underground cryogenic pipes 1.3 km long connecting the jetty to the land facilities. The corridor would pass through a trench in the cliff, and a tunnel would be dug under highway 132 in order to reach the jetty.

The terminal land facilities would include two full-containment LNG storage tanks with a capacity of 160,000 m³ each and regasification equipment. This equipment would make it possible to transport an average of 14 Mm³ of natural gas a day with a peak flow of 19 Mm³. The facilities would also include a nitrogen production unit to inject nitrogen into the natural gas as required so it can be used as fuel, pumps to send the LNG from the jetty to the terminal, impoundment basins, a flare, emergency disconnecting devices, control and surveillance systems, a back-up diesel generator, and service buildings.

The project also calls for construction of a natural gas pipeline linking the LNG terminal to the end of the existing natural gas grid southwest of Lévis, on land in the former city of Saint-Nicolas. The 61-cm diameter pipeline would stretch over 42 km. It would be installed in a permanent right-of-way with a maximum width of 23 m. A delivery station would be built at the end located in the Saint-Nicolas sector, as well as pig launchers at both ends and three cut-off valves spaced along the pipeline.

The construction cost of the LNG terminal is estimated to be \$775 M, and the cost of the pipeline, \$65 M, for a total of \$840 M. The proponent plans to commission the facilities in the summer of 2010.

Table 1 Technical characteristics of the project

Project elements	Dimensions and characteristics
LNG terminal	Operation for 45 years
River and on-shore facilities	
Jetty (trestle bridge)	Length of 500 m
Berthing cell	Length exceeding 500 m
Unloading arm	Height of 19 m
On-shore facilities	Platform with an area of 1.25 ha
1.3-km service corridor connectin	g river facilities to land facilities
Cryogenic pipes	Two underground pipes in a 54-m wide concrete caisson
Access road	Running under highway 132 in a tunnel and down the coastal cliff in a trench with a 14% slope. Right-of-way 10.9 m wide and 6-m wide roadway
Land facilities	
Storage tanks	Two storage tanks with a capacity of 160,000 m ³ each
	90 m in diameter and 46 m high
Regasification	Rated flow of 14 Mm ³ /d Peak flow of 19 Mm ³ /d
Flare and vaporizers	Four stacks
LNG tankers	Unloading in 24 hours
Reference model Capacity: 65,000 to 160,000 m ³	For 160,000 m ³ : 290 m long, 43 m wide, 41 m high, and 11.5 m draft
QFlex model Capacity: 216,000 m ³	315 m long, 50 m wide, 44 to 52.1 m high, and 12 m draft
Pipeline .	42 km long and 61 cm in diameter in a 23-m wide right- of-way
Other infrastructures	
LNG terminal access road	Municipal road to be built by the City of Lévis
Electricity supply (to be built by Hydro-Québec)	Two 230-kV lines over 1.5 km, including 3 or 4 towers in a 60-m wide right-of-way A main power substation

Review framework

The joint review panel reviewed the project from the perspective of sustainable development by applying the concept of environment held by the higher courts, which

encompasses biophysical, social, economic and cultural aspects, for current and future generations. This concept of the environment is broad and it includes the effects of human activities on the environment, life, health, safety, well-being, and comfort of the population, as well as other matters of interest to the communities. The sixteen principles of sustainable development set forth in Quebec's Sustainable Development Act (*Loi sur le développement durable*, R.S.Q., c. D-8.1.1), which must guide government actions, guided the commission.

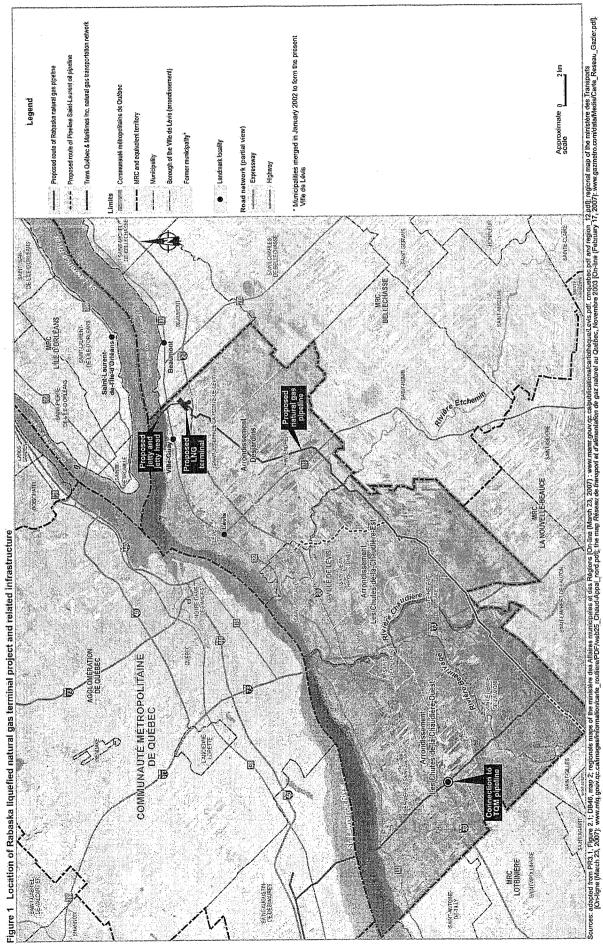
In addition, the Panel reviewed the project in accordance with the requirements of the Canadian Environmental Assessment Act and the Environment Quality Act, as stipulated in the Agreement. Therefore, it assessed the environmental effects of the project and their significance, including those caused by accidents and malfunctions, and the cumulative environmental effects that the project could cause, when combined with the effects from other works, projects or activities, taking into account measures to mitigate these effects. Project justification, the feasible alternatives, and the need for a follow-up program were part of the review, as well as the capacity of renewable resources to meet current and future needs. The Panel also studied the question of public security, taking into consideration the concerns of the surrounding population, and paid particular attention to project insertion in the natural and human environments.

The Panel conducted its analysis of the project using the information contained in the file assembled by the joint environmental assessment committee. This committee, created in accordance with Section 10 of the Agreement, has the responsibility to manage environmental assessment and ensure that all relevant and necessary information needed to meet the requirements of the *Canadian Environmental Assessment Act* and the Québec *Environment Quality Act* is obtained and taken into consideration. The Panel also based its review on information and documentation tabled during public hearings and from its own research.

In its work, the Panel defined four major issues related to the project: risks linked to project activities and facilities, project energetic timeliness for Quebec and Ontario, potential project impacts on the natural environment as well as impacts on the landscape.

In its report, the Panel provides findings, opinions, and recommendations. A finding refers to a fact. For certain findings, the Panel takes notice of certain facts or measures. This means that the Panel is satisfied with these measures and that there is no reason to pursue the analysis any further. An opinion refers to a Panel's view, whereas a recommendation refers to an action that the Panel recommends either to the proponent or to the responsible government authorities.

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16-Full containment (double-walled) LNG storage tanks 27- New ruisseau Saint-Claude bed 17- Terliary impoundment basin 28- Tunnel under highway 132 3- Workshop and warehouse 15- Boil-off gas compressors 30- Hydro-Québec's 735-kV transmission línes 29- Acces road nof relained 11- Nitrogen production unit 12- Gas line loading station 7. Fire water storage tank Legend 19- Sedimentation pond 23- Trestle bridge (jetty) 26- Concealment berm 25- Docking structure 8- Fire water pumps 14- Dispatch pumps 20-Metering station 10-Main substation 22-Shore facilities 2- Administration 9- Utility building 21- Utility corridor 31- Île d'Orléans 5- Control room 1- Guardhouse 13- Vaporizers 24- Jetly head 18- Flarestack 4-Fire station 6- Laboratory Figure 2 Rabaska liquid natural gas terminal project facilities

Source: adapted from PR3.1, Figure 2.3.