



**COMMENTS ON THE
ENVIRONMENTAL IMPACT ASSESSMENT OF THE ÉNERGIE
SAGUENAY LNG LIQUEFACTION AND EXPORT TERMINAL PROJECT PROPOSED BY
GNL QUÉBEC INC.**

**Équiterre Submission to the Canadian Environmental Assessment Agency
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Équiterre (Ottawa Office), 75 Albert Street, suite 305, Ottawa, ON K1P 5E7
Contact: Annie Bérubé, Director, Government Relations | tel. (613) 565-3821 | aberube@equiterre.org

I. Introduction

a. Équiterre and its interest in reviewing the Énergie Saguenay EIA

Équiterre appreciates the opportunity to provide this submission to the Canadian Environmental Assessment Agency (“CEAA”) on the Environmental Impact Assessment of the Énergie Saguenay LNG liquefaction and export terminal project proposed by GNL Québec inc. (“GNLQ”), and looks forward to future opportunities to provide input on this proposed project.

Équiterre is the largest environmental organization in Québec, with offices in Montréal, Quebec City and Ottawa. As a non-profit, charitable organization, Équiterre has worked for over 20 years to raise awareness and advocate for sound environmental and energy policies in Quebec, Canada and on the international scene as well. Since its creation in 1993, Équiterre’s primary mission has been to help build a social movement by encouraging individuals, organizations and governments to make ecological and equitable choices, in a spirit of solidarity. Our organization includes 24,000 members and more than 120,000 supporters located largely in Eastern Canada, and also manages the world’s largest community supported agriculture program, with over 120 organic farms in Quebec. As a leading organization covering the full gamut of environmental and energy issues in Canada, including climate change, clean energy, transportation, and a host of related issues, Équiterre is well-positioned to offer comments to CEAA on the Environmental Impact Assessment (“EIA”) for the Énergie Saguenay Project, prepared by GNLQ. Over the course of its organizational life, Équiterre has participated in public hearings and other engagement activities at both the federal and provincial levels in order to

raise important issues about the impacts of large projects for the environment and for local communities. In recent years, Équiterre has participated in reviews of a proposed new marine terminal on the Saint-Laurent River at Beauport, the Energy East crude oil pipeline project and the reversal of the Enbridge Line 9 pipeline. Équiterre thanks CEAA for the opportunity to present its comments on the EIA submitted by GNLQ for its Énergie Saguenay project.

b. Key documents referenced for purpose of these comments

Équiterre's comments on the EIA for Énergie Saguenay is based primarily on the following documents, as explained below:

- **Summary EIA on Énergie Saguenay (English version), May 2019¹**
- **Full EIA and appendices (provided in French only), January 2019²**
- **CEAA March 22 letter to GNLQ and the proponent's May 2019 reply³**
- **Guidelines for EIA of Énergie Saguenay Project, March 14, 2016⁴**
- **Project Description (Summary) of Énergie Saguenay Project, November 2015⁵**
- **Collection of opinions from Québec departments and agencies, May 22, 2019⁶**
- **Questions and comments from Québec (MELCC) for the proponent, May 2019⁷**

While CEAA's call for input on the EIA specifically invites comments on the EIA Summary, Équiterre finds it necessary and important to refer as well to the full 1132-page Impact Assessment filed in January 2019, along with certain of its appendices, as well as to other related documents in the CEAA Registry for this project. Reference to these additional documents is particularly important in light of the fact that Équiterre informs parts of its analysis on the questions posed by CEAA to GNL Québec on March 22, 2019 concerning gaps in the impact statement and company's responses to those questions, both of which refer back to the full impact assessment rather than the summary.

It is important to underscore that many of the answers to questions asked by CEAA concerning gaps did not result in new information in the May 2019 version of the summary, and this is unfortunate for

¹ GNL Québec inc., Énergie Saguenay Project Summary of the Environmental Impact Assessment, May 2019, (English version) at <https://www.ceaa-acee.gc.ca/050/documents/p80115/129690E.pdf>.

² GNL Québec inc., see CEAA registry file "Étude d'impact environnemental" for full Environmental Impact Assessment and all appendices (French only) at <https://www.ceaa-acee.gc.ca/050/evaluations/document/129691?culture=en-CA>.

³ CEAA, March 22, 2019 letter to GNL Québec inc. at <https://www.ceaa-acee.gc.ca/050/documents/p80115/128083F.pdf>, and reply by GNL Québec inc. dated April 2019, at <https://www.ceaa-acee.gc.ca/050/documents/p80115/129847F.pdf>.

⁴ Guidelines for the Preparation of an Environmental Impact Statement for the Énergie Saguenay Project, March 14, 2016, <https://ceaa-acee.gc.ca/050/evaluations/document/108257?culture=en-CA>.

⁵ Énergie Saguenay Project: Natural Gas Liquefaction Complex in Saguenay Project Description – Summary, November 2015, <https://ceaa-acee.gc.ca/050/documents/p80115/103948E.pdf>.

⁶ Government of Québec, Recueil des avis issus de la consultation auprès des ministères et organismes, published May 29, 2019, <http://www.ree.environnement.gouv.qc.ca/dossiers/3211-10-021/3211-10-021-9.pdf>.

⁷ Ministère de l'Environnement et de la Lutte contre les changements climatiques (MELCC), Questions et commentaires pour le projet d'Énergie Saguenay Complexe de liquéfaction de gaz naturel à Saguenay par GNL Québec inc., May 22, 2019, <http://www.ree.environnement.gouv.qc.ca/dossiers/3211-10-021/3211-10-021-10.pdf>.

many concerned citizens and groups who have only the time and resources to review the summary report.

In addition to CEAA, the Québec government has also recently analyzed the EIA for Énergie Saguenay and many of its findings and questions are extremely useful in evaluating the quality of the EIA and go beyond some of the questions and issues raised by CEAA in its March 22, 2019 letter to the promoter concerning the sufficiency of the EIA. The Québec government's analyses of the EIA and questions for the proponent are found on Québec's registry of environmental assessments for projects, the *Registraire des évaluations environnementales*,⁸ along with the French versions of the full EIA with appendices and summary EIA. Specifically, in May 2019, the Québec government issued two documents prepared by provincial agency experts tasked with evaluating the admissibility of the Énergie Saguenay impact assessment: a collection of 25 opinions from Québec departments and agencies, May 22, 2019⁹ and a series of 139 questions and comments for GNLQ from Québec (MELCC).¹⁰ Équiterre has reviewed these documents and finds that they raise many issues and facts – including some not raised by CEAA – that are completely pertinent to the exercise at hand. Thus, Équiterre's analysis has also been informed by and makes reference to these two Québec documents, as well as the documents from CEAA and the company.

c. Overview of key topics covered in Équiterre's comments

While Équiterre's concerns about the project and the EIA are numerous, the comments presented in this submission are primarily focused on the following topics:

- Process issues: critical context for evaluating the Énergie Saguenay EIA
- Key gaps and problems in the EIA Summary
- Greenhouse gas emissions
- Impacts on belugas and other marine mammals from ship traffic increases
- Demand and supply issues with LNG exports

II. Process issues: critical context for evaluating the Énergie Saguenay EIA

The current approach to reviewing the impacts of the proposed Énergie Saguenay project is beset by several serious process related problems that if left unresolved will likely undermine the quality of the environmental impact assessment of the project, as well as its credibility in the public eye. These problems exist as critical context for the review of the project's EIA and thus are addressed below in these comments.

Some problems stem from the restrictiveness of the scope of review as set out in the Guidelines for the Preparation of an Environmental Impact Statement for the Énergie Saguenay Project. ("Guidelines").¹¹ While Équiterre understands that the scope of the EIA was determined by CEAA in March 2016, serious new environmental realities, as well as judicial developments, have occurred since the final Guidelines

⁸ Documents available in the Énergie Saguenay file of the Québec registry at: http://www.ree.environnement.gouv.qc.ca/projet.asp?no_dossier=3211-10-021.

⁹ *Supra* note 6.

¹⁰ *Supra* note 7.

¹¹ *Supra* note 4.

were issued and these necessitate a reconsideration and revision of the scope of the EIA. Équiterre is aware that CEAA is reflecting on these issues¹² and believes that its comments relating to scope will be helpful to that reflection.

Other problems arise from the fact that multiple reviews are underway for what should be considered a single project. The evaluation of the Énergie Saguenay liquefaction/marine export complex separately from the Gazoduq pipeline that is expressly designed to supply gas to the complex, and the holding of separate federal and provincial reviews for each of the two components is resulting in four separate environmental assessment reviews. This situation is hindering understanding of the true impacts of the whole LNG export project and posing enormous obstacles to effective public participation in relation to the understanding and assessment of potential environmental impacts.

Équiterre believes that issues relating to both the scope of the CEAA assessments as well the conduct of four separate assessment processes are critical context in CEAA's review of GNLC's EIA of the Énergie Saguenay project. These two sets of issues are described briefly below.

a. Our fragile environment requires that the EIA scope include upstream emissions, marine transport and downstream emissions

It has been over three years since the final Guidelines were issued for the EIA of the Énergie Saguenay project, and in that time, concerns over climate change has increased dramatically in response to the steady stream of news about serious climate change impacts that are already underway and those that are likely coming much sooner than previously thought. Those developments, along with the entry into force of the Paris Climate Agreement in November 2016, mean that Canada must take carbon emissions more seriously than ever before. It should go without saying that this state of affairs should put fossil fuel projects under high scrutiny and this means that governments must find ways to readjust – as quickly as possible – their approaches to setting the scope of environmental impact assessment reviews.

With respect to Énergie Saguenay, several important issues need attention with respect to EIA scope.

First, Équiterre believes that **upstream greenhouse gas (“GHG”) emissions** should be included in Minister's decision under CEAA 2012 to determine whether the project is likely to cause significant adverse environmental effects. While section 3.2.1 of the Guidelines requires that the proponent “provide an estimate of upstream greenhouse gas emissions (GHG) that are linked to the project (production, treatment and transportation)”, the Guidelines also indicate that the production of upstream GHGs “are not considered to be part of the Project for the purposes of the environmental assessment” and that as a result, the Minister would not make a decision under CEAA 2012 about whether upstream GHGs due to the project are likely to cause a significant adverse environmental effect. While we understand that CEAA is, indeed, concerned with upstream GHGs as environmental effects of projects, using the environmental assessment only as a tool to “collect information on the effects of those activities.... for use by programs or activities within federal jurisdiction” is not enough. Canada is falling behind in its efforts to respect its obligations under the Paris Agreement and the government must immediately revise its approach in order to ensure that upstream emissions are fully included as part of the basis for the Minister's decision on the project.

¹² CEAA's May 16 letter in response to April 7 letter of mise en demeure.

Second, Équiterre is similarly concerned about the treatment of **marine transport of LNG** within the scope of the EIA and has already, along with other organizations, brought this to CEEA's attention in the form of a letter of *mise en demeure* dated April 7, 2019.¹³ As was noted in that letter, the Guidelines (section 3.2.1) consider marine shipping "associated with the Project that is beyond the care and control of GNL Québec" to be an "additional matter relevant to the environmental assessment" that would be studied but *not* included in the Minister's decision on whether the project is likely to cause significant adverse environmental effects. This puts a large portion of marine shipping impacts in the same boat, so to speak, with upstream emissions: they are to be addressed by the proponent in terms of information provided in the EIA, but are still not considered within the scope of the Project as it pertains to the Minister's decision on adverse environmental effects.

The April 7 joint letter to CEEA requesting that marine transport be clearly included within the scope of the EIA for the Énergie Saguenay project, makes reference to the Federal Court of Appeal decision in *Tsleil-Waututh Nation v. Canada (Attorney General)*¹⁴ as a justification for expanding the scope of the EIA. In that decision, the Court held *inter alia* that it was unreasonable for the National Energy Board, to exclude the increased marine traffic associated with the project from the environmental assessment under CEEA 2012. This decision, rendered in August 2018, is entirely pertinent to the present situation concerning the treatment of marine transport for the Énergie Saguenay EIA, particularly given the parallel between Killer whale and beluga whale populations needing protection from increased shipping traffic and the risks it carries with it.

CEEA's May 16 response to the April 7 joint letter states that, as currently defined, the scope of the Énergie Saguenay project includes marine transport within the jurisdiction of the Saguenay Port Authority and its impacts on the beluga whale. Équiterre believes strongly that this jurisdictional boundary, based upon the boundary of a federal public enterprise (the Saguenay Port Authority) is far too limited and for several reasons should extend to include a neighboring area under federal control: the Saguenay-St. Lawrence Marine Park. The eastern border of the jurisdiction of the Port of Saguenay ends at about the same location as the western boundary of the Saguenay-St. Lawrence Marine Park. As a federally and provincially administered area aimed at protection of the lower Saguenay River and its confluence with the Saint Lawrence River, the park provides critical protections for beluga whales and other threatened species, including the Blue whale. In light of this, and the fact that the Park is clearly under federal control, as evidenced by the federal *Marine Activities in the Saguenay-St. Lawrence Marine Park Regulations*¹⁵ enacted in 2002.

Équiterre notes in passing that while not all of the regulations just cited apply to ships carrying cargo (including oil and gas), some do, in particular, sections 14, 14.2 and 19. This adds additional justification for including all of the waters of the Saguenay-St. Lawrence Marine Park within the scope of the EIA in relation to effects of marine transport from the project. In sum, strong justifications exist for including the entire area of the Saguenay-St. Lawrence Marine Park – at the very least – within the scope of the marine transport matters upon which the Minister would decide in relation to significant adverse environmental effects of the Énergie Saguenay project.

¹³ Letter to Mr. Ron Hallman, President, CEEA, April 7, 2019, signed by Équiterre and 10 other groups.

¹⁴ 2018, FCA 153.

¹⁵ SOR/2002-76, February 20, 2002.

Third, Équiterre believes that **downstream GHG emissions** should be included within the scope of the EIA. The Guidelines do not mention downstream impacts or emissions at all, hence, they have not been included in the scope for the review of Énergie Saguenay's EIA. Équiterre's view is that this is extremely unfortunate given the high level of GHG emissions downstream of the liquefaction and export stages. In a life cycle analysis of Énergie Saguenay's export project prepared by CIRAIG for GNLQ,¹⁶ the authors indicate that between 68 and 77% of total GHG emissions that could be linked to the project would be downstream, with the combustion of natural gas and the infrastructure required for this combustion being the main contributors.¹⁷ Downstream emissions result from the many activities that happen between the time the LNG is loaded after liquefaction and the time of end use. In very general terms, these activities relate to LNG tanker transport to the import destination, regasification, transmission of the regasified natural gas directly to industries for generation of industrial heat, or transmission to energy plants for the generation of electricity, or fuel for transport, or transmission to central utilities (e.g., gas distribution companies) where it may be further distributed for residential or commercial or industrial use such as heating.

While CIRAIG included downstream emissions in its lifecycle study, it appears that these emissions are not being considered by CEAA, since they are not even mentioned in the Guidelines as "additional matters relevant to the environmental assessment." This is particularly unfortunate given the fact that information and data is available, and has already been examined in relation to Énergie Saguenay in the CIRAIG study. Furthermore, detailed information exists already on the various phases and steps within the downstream sector of LNG operations, including specific methodology for GHG emissions from downstream sources.¹⁸

b. Four separate review processes for one project are unfair to the public, inefficient for all

At the core of the problem is the fact that separate the Énergie Saguenay liquefaction and marine export terminal project is entirely connected to and not viable without the pipeline that would supply all of the natural gas destined for liquefaction and marine export. Similarly, the 750-km pipeline that would supply the Énergie Saguenay project with the natural gas to be liquified has no other stated purpose but to serve that facility. Put bluntly, neither project serves a purpose without the other. An LNG plant located on the Saguenay River cannot liquify gas without a pipeline supplying the gas and the Gazoduq pipeline's promoters have indicated that new gas pipeline has been proposed in order to feed the LNG plant.

The airtight connection between these two projects is entirely relevant to how they should be treated with respect to environmental impact assessments, and this situation provides essential context for the assessment process as well as Équiterre's comments on the Énergie Saguenay EIA. Équiterre observes that CEAA has already recognized, to some extent, the important connection between the two components and the implication for understanding project impacts. In CEAA's March 22 questions and comments for the proponent, CEAA asked that it provide information on the pipeline that would serve as the gas supply for the liquefaction complex.¹⁹ The purpose was to complement the assessment of

¹⁶ EIA Annex Volume 1, Part 2.

¹⁷ Ibid, p. vii.

¹⁸ See e.g., American Petroleum Institute (API), *Liquefied Natural Gas (LNG) Operations: Consistent Methodology for Estimating Greenhouse Gas Emissions*, May 2015, <https://www.api.org/~media/Files/EHS/climate-change/api-lng-ghg-emissions-guidelines-05-2015.pdf>.

¹⁹ March 22 CEAA letter to proponent, Section 3.1. Project Components.

cumulative effects on key environmental attributes such as species at risk, migratory birds, wetlands and water quality. From Équiterre's view, information should also be gathered on the GHG emissions associated with construction and operation of the gas supply pipeline for the same reason: use in preparing an assessment of cumulative effects in relation to GHGs.

The four-track review approach of this multifaceted project is creating an environmental assessment process vastly larger and more complicated than it needs to be or should be. Multiple reviews of the same undertaking create not only obvious problems like government inefficiency (and wasteful expenditures to match), but also unreasonable burdens on individuals and groups that typically possess only a fraction of the resources necessary to review the projects and make meaningful input. As well, proceeding by way of disjointed, multiple review processes tends to diminish the chances that the full range of interconnected issues associated with highly-linked projects will be thoroughly understood and evaluated in terms of potential environmental impacts.

The problems with a four-track review can perhaps best be understood by considering two categories of problems: those stemming from the practice of letting the federal and provincial reviews of the exact same project proceed on completely separate tracks, without inter-governmental collaboration or coordination, and those stemming from the approach evaluating the liquefaction/export complex separately from the gas pipeline.

i. Separate federal and provincial review is onerous, inefficient and affects assessment quality

As alluded to above, a key consequence of conducting entirely separate federal and provincial reviews of Énergie Saguenay is that it places enormous and unreasonable burdens on citizens, public interest groups and Indigenous groups who typically do not have the resources to fully follow and engage in parallel reviews. Given that governments frequently speak of the importance of public engagement, this fact alone should call into question an assessment process that requires interested parties to participate in four separate processes for what is clearly a single, multifaceted undertaking.

Another key issue, which also negatively affects the capacity for public engagement is the inefficiency of proceeding in separate federal and provincial reviews and lost opportunities for information-sharing during each government's review and analysis of the EIA. A pointed example of the inefficiencies and lost opportunities that can arise when federal and provincial environmental assessments of the same project have not been jointly conducted or coordinated has already happened in relation to the Énergie Saguenay project.

In May 2019, the government of Québec published, on its online environmental impact registry, opinions from 25 agency departments on the admissibility of the EIA, and one department within the Ministère de l'environnement et de la Lutte contre les changements climatiques (MELCC), presented 139 questions to the proponent in which it requested additional information, clarifications, details and corrections EIA.²⁰ All 25 of the opinions were prepared in the months of March and April 2019 and were based on the full

²⁰ The department is the Direction Générale de l'évaluation environnementale et stratégique, and the document, titled « Questions et commentaires pour le projet d'Énergie Saguenay Complexe de liquéfaction de gaz naturel à Saguenay per GNL Québec inc. » is available on the provincial environmental assessment registry for Énergie Saguenay at http://www.ree.environnement.gouv.qc.ca/projet.asp?no_dossier=3211-10-021.

EIA document and appendices published online in February 2019 (dated January 2019). Seven of the 25 opinions declared the EIA to be inadmissible (*non-recevable*) due to a host of gaps, inaccuracies and other problems, and one provided a detailed methodology for additional requested analyses relating to greenhouse gases. These eight opinions were issued by various departments within three ministries: the MELCC, the Ministère des Forêts, de la Faune et des Parcs the Ministère de la Santé et des Services sociaux.

One unfortunate consequence of having separate federal and provincial review processes for the Énergie Saguenay projects is when CEAA finished its own preliminary review on admissibility and sent questions to the proponent in March 2019, the detailed analyses done by the government of Québec on admissibility of the EIA, the presentation of questions for the proponent were not yet published. As such, CEAA would not have had the benefit of the detailed work by the province. While this may be a moot point in light of the fact that it seems unlikely that CEAA would have chosen to be informed by the provincial opinions and questions in the absence of a joint federal and provincial assessment process, the fact remains that valuable information provided at one level of government was not available to another level of government focused on the same task: the admissibility of a project's environmental impact assessment.

Likewise, the Québec government agency experts who prepared opinions in March and April 2019 on the EIA's admissibility would have had the opportunity to be informed by the proponent's responses to the questions posed by CEAA, if those responses had been available before the opinions were prepared. It seems reasonable to assume that Québec would have preferred to conduct its admissibility analysis with the benefit of knowledge created by the back-and-forth between CEAA and the proponent.

The process of conducting separate and uncoordinated reviews at the federal and provincial levels is especially vexing given the fact that GNL Québec has provided nearly identical documents to both the provincial and federal governments and has attempted to provide materials that meet both federal and provincial standards for environmental assessments. The key project-related documents posted online in the CEAA registry are, with the exception of materials in English, identical to the documents posted online in Québec's environmental project registry, the *Registraire des évaluations environnementales*. The fact that identical or near identical assessment documents from the proponent are being reviewed at both the federal and provincial levels suggests that a joint-federal review would not be burdensome to any of the parties, and in fact it may prove more efficient for all.

ii. Separate assessments for liquefaction and pipeline components are unfair and unwarranted

Evaluating the Énergie Saguenay liquefaction/marine export complex separately from the pipeline that would supply the natural gas destined for liquefaction is unfortunate and unnecessary. When projects that are inextricably linked become the subject of separate impact assessments, all the risks normally associated with piecemeal environmental assessment come into play. Piecemeal assessment – the term used to describe the approach whereby infrastructure components of a problem (e.g. a facility and a pipeline serving the facility) are assessed separately rather than together – can and will lead to a poor understanding of the of the full impacts of the larger endeavor.

For large fossil fuel infrastructure projects, proponents must include all components of the project and avoid breaking up a larger project into separate components or phases, with each part addressed as a separate project. Without combining the component parts that make up the full nature of the undertaking, neither regulatory bodies nor the public make an effective or complete evaluation of

anticipated impacts. The piecemeal approach allows for incremental approvals that let operations expand and continuously alter its surroundings without proper oversight or additional public notification and participation. Equally important, fragmented approval processes hinder the consideration of cumulative impacts.

Finally, separate review of the liquefaction/export complex project and the supply gas pipeline project is not only unwise, it is unnecessary. GNLQ claims that the proposed liquefaction/export complex and the pipeline are simply “related” projects, being developed and later operated by different companies. For example, in the Summary EIA’s brief mention of the natural gas supply for the liquefaction facility via a new pipeline, it states that, “Construction of this gas pipeline is ...a related project under the responsibility of a third party, Gazoduc Inc.”²¹

With all due respect, portraying the proponents of the liquefaction/export complex and the supply pipeline as independent entities stretches the truth beyond credulity and the reasons are simple. The Registraire des entreprises du Québec (“Registraire”) reveals that GNLQ is wholly owned by a limited partnership called the Société en commandite GNL Québec (in English, the LNG Québec Limited Partnership).²² The Registraire also shows that Gazoduc inc., the developer of the gas supply pipeline, is wholly owned by the Société en commandite GNL Québec.²³ Thus, both GNLQ and Gazoduc inc. have the same parent. Additionally, both GNLQ and Gazoduc inc. have a two-member board of directors and those two members are the same people in each case: James F. Illich, and James W. Breyer – both from Palo Alto, California, are the only two board members of both GNLQ and Gazoduc inc. In both cases, Mr. Illich is the Chairman of the Board and Mr. Breyer is listed in the registry as “administrateur.”

In the full EIA, a description is given of the proponent and its lineage, including a mention that GNLQ is wholly owned by the Société en commandite GNL Québec.²⁴ What is not mentioned, however, is that the company developing the gas pipeline, Gazoduc, is also wholly owned by the exact same limited partnership and administered by the exact same board of directors. In fact, the word “Gazoduc” appears nowhere in the 1132 pages of the full EIA. Équiterre believes this situation represents a serious lack of transparency and good faith before the public, who is being told (e.g., in the Summary EIA) that the gas pipeline is being developed by “a third party”. Regardless of issues of terminology and legal definitions, the bottom line is that Gazoduc and GNLQ are operating as divisions of one enterprise with exactly the same ultimate goal: to move western Canadian gas to Québec to liquify and then export it.

III. Key gaps and problems in the Summary EIA

The original Summary EIA was issued by the proponent in January 2019, in both French and English. Following CEEA’s issuance of a March 22, 2019 letter on the insufficiency of the EIA (oriented to the full EIA), the proponent issued a revised Summary EIA (in both languages) in May 2019. CEEA’s March 22 letter instructed the proponent not only to address the questions and gaps identified but also to ensure

²¹ Summary EIA, p. 21.

²² Registraire des entreprises du Québec. Consult <http://www.registreentreprises.gouv.qc.ca>, entry for “GNL Québec inc.” (Dossier no. 1170021225).

²³ Registraire des entreprises du Québec. Consult <http://www.registreentreprises.gouv.qc.ca>, entry for “Gazoduc inc.” (Dossier no. 1173783664).

²⁴ Full EIA, pp. 2-4.

that the Summary EIA reflect all the information and clarifications requested (“Par ailleurs, le résumé devra refléter tous les renseignements et clarifications demandées dans cette correspondance.”) Unfortunately, it appears that these instructions were not carefully followed in all cases, and this – along with other serious inaccuracies and omissions in the Summary EIA, does a disservice to the public and various interested parties who rely on such documents to understand the environmental impacts that the Énergie Saguenay project may cause.

a. Insufficient coverage of GHG issues in the EIA Summary Document

Équiterre’s review of the Summary EIA reveals that it contains precious little coverage of the actual facts or issues relating to GHG emissions related to the project. This is unhelpful given the great concern by many about the approval of large-scale energy projects based on fossil fuels and the implications for climate change. The public needs detailed, objective and credible information about projects and their GHG impacts in order to engage effectively in hearing and other participation processes to make their views and concerns known.

In fact, Équiterre finds it surprising that in this era, we find no separate chapter or even sub-chapter on GHG emissions in the Summary EIA.

In place of objective facts about estimated emissions from the project, the Summary EIA is replete with mentions of the company’s claims that it will be the “greenest” LNG plant,²⁵ with the lowest carbon footprint in the world²⁶ due to its plan to use hydroelectric energy, rather than natural gas energy, to power its natural gas liquefaction process. In fact, of the 14 mentions of GHGs in the EIA summary, eight involve statements of this nature. The liberal sprinkling of these claims throughout the EIA, and particularly in the Summary document is highly unfortunate given that:

- 1) comparing Énergie Saguenay’s GHG emissions to levels at other LNG Export operations does not address the core issue of what project emissions will be compared to a “no-project” scenario;
- 2) When all stages of the LNG production chain are considered, Énergie Saguenay’s project actually would not have the lowest levels of emissions of any LNG export plant; rather, its GHG emissions are about the same as other similar projects around the world (a point underscored by an expert in Québec’s Ministère de l’Environnement et de la Lutte contre les changements climatiques); and
- 3) LNG exported overseas by GNLQ will only result in GHG reductions in the destination country under a limited set of circumstances (a point made by CIRAIG in an appendix to the EIA).

Équiterre believes that public relations claims about having “the lowest carbon footprint in the world”, etc., have no place in environmental impact assessments in that they do not serve the aim of providing useful information about the project’s potential impacts.

²⁵ See e.g., Summary EIA pp. 3 and 9. Similar claims made on pages 1, 4, 5, 25.

²⁶ Summary EIA p. 25.

b. Missing information on key sources of GHG emissions;

There are several major sources of emissions that are simply not mentioned at all in the Summary EIA.²⁷ These sources are explained in more detail in Section IV, below (Greenhouse Gas Emissions), but are mentioned briefly here to demonstrate the point that key information of interest to the public and environmental advocacy groups is missing from the Summary.

For example, the Summary EIA mentions nothing about potential diesel fuel emissions from LNG tankers, and implies that diesel fuel is used only as a back-up fuel (the primary fuel being gas) “for most of the recent LNG tankers”.²⁸ Various GNLQ documents, however, refer to the Q-Flex LNG carrier, which would be the largest type of LNG tanker to be loaded at Énergie Saguenay, and Q-Flex LNG tankers specifically do not run on natural gas. They run on diesel, and thus emit GHGs from diesel combustion. Similarly, emissions information on GHG from tugboats is missing. Tugs are powerful boats often using diesel engines and as such, they emit GHGs. But the proponent it was difficult to estimate the number of tugs required²⁹ and decided to borrow tug emissions figures obtained in relation to another project.³⁰

The Summary EIA also says nothing about GHG emissions from the emergency generators during times of emergency (as opposed to during maintenance start-ups). In fact, the information about how the emergency diesel generators function in relation to the liquefaction process during outages is quite unclear: the text says “In case of a partial or total power cut, nine emergency generators distributed around the site will provide essential power to safely shutdown of the liquefaction facility.” (The French version is similar). Information provided in the full EIA, however, indicates that each liquefaction unit will have two emergency generators that would take over the function of the units in case of an outage – not shut them down.³¹ This is a critical point in need of clarification, since it may affect the amount of diesel potentially used, thus GHG (and other) emissions. While it is impossible to predict emergencies, companies are expected to estimate emissions from power outages and accidents and more is said on this in Section IV.

The summary EIA also says nothing at all about possible emissions from concrete, and as is well known, concrete can be associated with high GHG emissions due to the fact that a key ingredient is cement: one of the highest GHG-emitting materials on the planet. Nor does the Summary EIA mention anything about the possibility that a cement plant may constructed temporarily on the site (the LNG storage tanks, large loading platforms and wharves would be made of concrete, and concrete would be used as a base for the electrical substation and other structures like on site buildings).

c. Missing and insufficient information on potential fuel spills from LNG tankers and tugboats

As noted above in relation to GHG emissions, the proponent does not provide sufficient information about the use of diesel fuel used in certain LNG tankers or in tugboats to be able to estimate effectively the likelihood and impacts of spills of diesel fuel (or heavy fuel oil or marine fuel oil) into the Saguenay

²⁷ Sometimes, but not always, these omissions mirror omissions in the full EIA.

²⁸ Summary EIA p. 20.

²⁹ GNLQ response to CEAA’s questions, p. 20.

³⁰ GNLQ response to CEAA’s questions, p. 39.

³¹ Full EIA, p. 90. In GNLQ’s response to CEAA’s March 22 request for information, the proponent mentions that the emergency generators to be used on the project site will be diesel generators. Annexe 3 Fiche Synthèse des Résultats de l’atelier de travail #2 : Milieu Physique (Eau, Air, Sol), unnumbered page (pdf page 334).

and the Saint Lawrence Rivers. This is simply inexcusable in light of concerns about threats to vulnerable species like Beluga whales.

Along the same lines, the Summary EIA's discussion of a quantitative risk assessment for the marine environment is completely unclear on the nature of the "leak" scenario studied.³² A critical point of clarification is whether or not the leak scenario involved fuel (e.g., diesel, marine fuel oil, heavy fuel oil) or liquid natural gas.

The Summary EIA also does not provide any information about the refueling of the LNG tankers and tugs other than to say, "No hydrocarbon ship refueling will be carried out from the loading platforms."³³ While this is as it should be, common sense would indicate that the ships will need refueling before they depart for their long voyages overseas, and this could mean that they are filling up on large amounts of fuel at other marine service areas nearby. This, in turn, means there is a potential for fuel spills somewhere in the general vicinity of the Énergie Saguenay complex and or lower Saguenay River. But for the fact that the ships are berthing at Énergie Saguenay to load LNG, the ships would not be refueling at those nearby locations and thus would not be creating potential risks.

d. Confusing, conflicting language on "study areas", lack of information on meaning of term and question of compliance with the Guidelines

An essential and pivotal concept, obviously, in any environment impact assessment is the "study area". By defining and delimiting the study area, a promoter signals important information to the public and regulators about which areas were studied with respect to potential project impacts – and which were not. The Summary EIA for Énergie Saguenay uses many terms to discuss study areas, but many of those terms are not the terms referred to in the Guidelines, and neither are they defined by the proponent except by way of delimitation on maps, at least in relation to the location of the "local study area" and the "project study area".³⁴ Équiterre notes that the Guidelines, by contrast, speak of "local" and "regional" study areas, and these terms appear to be important to the study strategy and methodology guidance in section 4.2 of the Guidelines.³⁵ While the Summary EIA does provide a map of the "local study area", there is no map delimiting the "regional study area", nor is there a textual description of same. Équiterre's concern with the way in which study areas are labelled and discussed is that it would be going against the interests of providing a thorough and objective EIA for a proponent to use smaller study areas than they should for their evaluations of various kinds of impacts. Clarification is needed on this point. Also, where in the full EIA does the proponent define and delimit the regional study area?" Finally, GNLQ uses a wide variety of terms in the Summary EIA when discussing study areas (e.g., "limited study area", "restricted study area", "enlarged study area", "expanded study area", etc.), and it is not apparent where in the Summary or Full EIA the reader is to find the definitions that would distinguish these terms. Clarity is needed on this issue as well. It is also important for the proponent to explain the relationship between the various terms it employs in the EIA and the core terms of "local"

³² Summary EIA, p. 70.

³³ Summary EIA, p. 36. The proponent restated this claim of no refueling of ships or tankers on the site in the context of its responses to CEAA's March 22, 2019 request for additional information, p.18.

³⁴ Summary EIA, see e.g., Map 2-1 Project Study key Areas, p.11, as well as maps on pages 51, 41 and 13 (the maps on pages 41 and 13 refer only to the "project area").

³⁵ Guidelines, p. 8.

and “regional” study areas referred to in the Guidelines.

IV. Greenhouse Gas (GHG) Emissions

a. The importance of thoroughly evaluating GHG impacts for Énergie Saguenay

In light of the fact that climate change has now taken its place in our world as the most critical challenge of our time, it should go without saying that energy projects relying on fossil fuels, such as the natural gas liquefaction and export project, “Énergie Saguenay”, proposed by GNL Québec inc. must receive the utmost scrutiny for potential impacts relating to GHG emissions. As mentioned above in this submission, Canada needs to step up its game on carbon emissions in order to meet its obligations under the Paris Agreement. Furthermore, CEAA is no doubt aware of the open letter signed by 160 Canadian scientists in *Le Devoir* on June 3, 2019 concerning the need to rein in fossil fuel projects such as Énergie Saguenay. Équiterre shares their opinion wholeheartedly.

Energy projects that require extraction, processing, transmission pipeline transport, storage and result in the combustion of fossil fuels produce large quantities of greenhouse gas emissions. In the case of LNG projects, the added steps between pipeline transport and end-use combustion involve steps and processes that create even higher levels of GHG emissions. These special steps include the pre-treatment of natural gas for liquefaction (e.g., to remove impurities), liquefaction using powerful compressors and other energy-intensive refrigeration technology, storage of liquified natural gas, loading, marine shipping, unloading, regasification (a multi-step process in and of itself) and transport to end-use destinations via distribution pipelines or other means.

b. Sources of GHG emissions for Énergie Saguenay

With respect to Énergie Saguenay, the primary sources for GHG emissions that could result from the construction and operation of this project are, according the proponents,³⁶ the following:

- Carbon dioxide (CO₂)
- Methane (CH₄)
- Nitrous Oxide (N₂O)

It should be noted that there are other GHGs, such as Sulfur Hexafluoride (SF₆), Hydrofluorocarbons (HFCs) and Perfluorocarbons (PFCs) that could result from LNG operations, but these are generally minor³⁷ amounts and perhaps for this reason, GNLQ did not consider those sources.

While GHG emissions occur at every step of the process and supply chain, the emissions of primary concern with LNG export projects tend to be with carbon dioxide emitted during combustion of natural gas, diesel, marine fuel oil and other fuels burned by various machines, vehicles and processes during construction and/or operation and with methane that is released purposely during processes such as venting or leaked accidentally either as fugitive emissions or emissions caused by specific incidents. These included all transport by pipeline of feedgas (supply) and transport of LNG by tanker to its destination and beyond, as well as end uses. Due to limitations of time and other constraints, however,

³⁶ Full EIA, p. 321.

³⁷ *Supra* note 18, p. 39.

our comments in this section are primarily concerned with specific issues that came to our attention in the course of reviewing the EIA.

c. General problems with coverage and analysis of GHG issues in the EIA

As mentioned in section III a., above, a key general problem with the EIA is its approach to the treatment of GHG emissions issues and in particular the frequent substitution of solid analysis with general statements about the proponents' aspirational aims and beliefs concerning GHG emissions. To recall, we are speaking of the tendency of the proponent to use the wrong standard for evaluating GHG emissions (relative emissions cannot be substituted for emissions compared to a "no-project" scenario), to make erroneous comparisons with other LNG export projects concerning emissions (when all stages of the LNG production chain are considered, Énergie does not stand out as the "greenest" project), and to presume that exported LNG is certain to create reductions in GHGs elsewhere (it may not be substituting for another energy source at all, or it may be substituting for something with lower GHG emissions, and as such the result would be an increase rather than a decrease in GHG emissions at the destination).

d. Select problems with GHG emissions information gaps in the EIA analysis

Équiterre has serious concerns about the numerous insufficiencies and gaps in the company's GHG emissions, as well as with the characterization of emissions that the company finds hard to either measure or estimate. Our key concerns, including specific categories of emissions for which information is either missing, insufficient or erroneous in the EIA, are summarized below.

- **LNG tanker emissions (propulsion)**³⁸

The diesel burned to propel the LNG tankers on their long journeys to and from the Énergie Saguenay complex must be considered as a GHG emission of the project. The Q-flex LNG tankers that the proponent has spoken of in various documents³⁹ run on diesel, not boil-off gas from the gas they are transporting.

- **Diesel emergency generators emissions (including liquefaction processing units)**

The EIA indicates that throughout the plant will be located a number of permanently installed emergency generators, powered by diesel. In the event of an electricity outage, these diesel generators would power all essential functions of the plant. This would, of course, mean that during electricity outages, the liquefaction processes would be powered by large diesel generators. These generators need to be maintained regularly, and part of such maintenance is to test their operation, which of course creates certain levels of GHG emissions.

While the maintenance-related emissions of the emergency generators appear to have been accounted for in the EIA, the GHG emissions related to the use of the generators during times of emergency does

³⁸ Emissions from LNG tankers that are due to methane leaks during the loading and transport of LNG, aka "fugitive emissions", are also a serious concern, but time and resource constraints prohibit more discussion on this topic in the context of the present comments.

³⁹ See e.g., Project Description Summary, pp. 4, 15, 18; GNL Québec, Project Presentation November 2018, https://energiesaguenay.com/media/cms_page_media/49/20181023_%C3%89nergie%20Saguenay%20project%20presentation_ENG.pdf, p. 37, graphic indicating frequency of "3 to 4 ships per week" for "Q-Flex LNG ship".

not seem to have been estimated. MELCC experts at the Direction des avis et des expertises, secteur air pointed out in their opinion on admissibility that while in relation to air contaminant modelling, the proponent had incorporated emissions from emergency generator maintenance as well as emissions from pilot flare combustion, the impact on air quality of transient or emergency situations is not documented.⁴⁰ This seems to suggest, that perhaps GNLQ also did not estimate GHG emissions resulting from the use of emergency diesel generators during times of emergency. If true, this would be an undesirable and unnecessary lacuna. Équiterre recommends that CEAA obtain clarification from the proponent on this point.

Although the electricity supply from Hydro-Québec is highly reliable, it is not perfect, and outages do occur from time to time and Hydro-Québec acknowledges the possibility of outages in the context of its regular rate cases, and as such, information is available from Hydro-Québec directly on expected incidence of forced outages. Since the chances of outages occurring are more than zero they must be factored into the GHG emissions estimates. Due to the fact that Hydro-Québec periodically makes estimates of electricity service hours lost to “forced outages”, it seems reasonable to expect that GNLQ could obtain such information and use it to design estimates of how many hours or days per year the emergency generators might be expected to run, on average, over the life of the project. From there, estimates of GHG emissions from the diesel generators, whose size and specifications are known or knowable, can be made. It is unacceptable to assume zero emissions from emergency operation of the diesel generators.

- **Emissions from electrical energy used on the site should not be treated as zero**

In the full EIA, the proponent makes the statement that compressors run on hydroelectricity generate no GHGs.⁴¹ (“Le choix de compresseurs entraînés par moteurs électrique s’avère en effet l’option la plus intéressante au Québec du fait que cette option ne génère aucune émission de gaz à effet de serre”). This is inaccurate. It is a basic fact that GHG emissions from hydroelectric power are simply not zero. In one of the expert opinions on admissibility, an expert from MELCC’s Direction de l’expertise climatiques explains the calculation of indirect GHG emissions attributable to the use of electrical energy.⁴²

- **Emissions from concrete produced for construction of the Énergie Saguenay complex**

According to the EIA, some 200,000 cubic metres of concrete will be used to construct the liquefaction plant.⁴³ From the text, it appears that this amount refers only to what would be used to manufacture the large LNG storage tanks and does not include the concrete required for other large structures making up the complex. For example, the EIA indicates that the two loading platforms at the marine terminal will be 46 metres wide along the Saguenay River and 35 metres deep.⁴⁴ While the thickness of the structure is not mentioned, it is clear that these structures will require a massive amount of concrete. Since cement is a key ingredient in concrete and the production of cement is one of the greatest single sources of GHGs on the planet today,⁴⁵ it is critical that a careful estimate be made of GHG emissions for concrete that will be used to construct all parts of the Énergie Saguenay complex.

⁴⁰ *Supra* note 6, Jean-François Brière & Caroline Boiteau, Direction des avis et des expertises secteur air (avis 21).

⁴¹ Full EIA, p. 51.

⁴² *Supra* note 6, Sergio Cassanaz & Alexandra Roio, Direction de l’expertise climatique, MELCC, (avis 15).

⁴³ GNLQ’s response to CEAA’s March 22 request for information, at p. 21.

⁴⁴ Summary EIA, p. 19.

⁴⁵ See e.g., Johanna Lehne and Felix Preston, *Making Concrete Change: Innovation in Low-carbon Cement and Concrete*, Chatham House, The Royal Institute of International Affairs, June 2018,

It should be noted that the full impact study refers to the fact that a concrete plant ("usine à béton") *may* be installed on the project site for this purpose, and as mentioned in a previous section of these comments, the original Project Description also mentioned the possibility that a "concrete plant" may be installed temporarily on the site.⁴⁶ It is of critical importance that the proponent clarify as soon as possible whether or not a concrete plant will be installed at the site in the service of fully informing the public about the components of this project, as well as ensuring that GHG emissions with respect to production and transport from off-site, if that is the case, will be properly factored into GHG emissions estimates.

- **Land-clearing, deforestation relating to construction of the complex and installation of 345 kV transmission line**

Québec agency experts at MELCC, in the Direction de l'expertise climatiques, pointed out in their opinion on the admissibility of GNLQ's EIA that the calculation of GHG emissions from deforestation activities during project construction is highly important.⁴⁷ Deforestation, of course, results in the removal of carbon sinks like trees and other flora that – left undisturbed – function to naturally capture and sequester CO₂ over long periods of time. As noted in the experts' opinion, some large-scale projects, including fossil fuel operations but also road construction and other related activities can lead to important losses of carbon sinks. For this reason, the experts provided the proponents with guidance needed to help bring their EIA up to the level of admissibility. (We note that these experts found the EIA to be inadmissible, not only for its failings with respect to accounting for GHG emissions related to deforestation, but for other lacunae as well.

To power the liquefaction process at the Énergie Saguenay complex with hydropower, it will be necessary for a new, 345 kV transmission line of approximately 40 kilometres in length to be built near the complex. The company indicates in its Impact Assessment that it did not assess impacts from the transmission line because it is a "separate, related project" that will be constructed and operated by Hydro-Québec. GHG emissions associated with the new 345 kV line would include, but are not limited to, the emissions resulting from deforestation for the right-of-way and emissions related to production and the construction of the towers supporting the transmission lines and pouring of concrete for the base supports.

- e. **Emissions that are inconvenient or hard to estimate must not be treated as non-emissions**

When proponents do not include estimates of certain emissions because they are difficult to measure and/or estimate, the unfortunate consequence is that – for purpose of the Impact Assessment – such emissions remain uncounted in the impact assessment, which is tantamount to assigning values of zero to these emissions. This is an unacceptable practice, for the simple reason that hard-to-measure or challenging-to-estimate emissions are still emissions, and as such, they have values that are more than zero. When this happens across several or many types of emissions, the result is that a number of GHG emissions are not being factored in to the analysis of potential GHG impacts of the project. This in turn

<https://www.chathamhouse.org/sites/default/files/publications/2018-06-13-making-concrete-change-cement-lehne-preston-final.pdf>.

⁴⁶ Project Description Summary, p. 20.

⁴⁷ *Supra* note 6, Sergio Cassanaz and Alexandra Roio, Direction de l'expertise climatique (avis 21).

will produce an underestimation of the GHG emissions that could result from construction and operation of the project.

It cannot be overstated that the treatment of emissions that a proponent finds inconvenient or difficult to measure or even estimate must *not* result in such emissions being omitted from the analyses of GHG impacts (or other impacts). Such a practice is indefensible in light of the fact that various methodologies are typically available for deriving emissions estimates when simpler estimates are not possible due to measurement or other challenges. Several experts within the Québec government, for example, provided the company with specific suggestions, estimation methods and even calculations for arriving at estimations of certain types of emissions. Québec agency experts at MELCC's Direction de l'expertise climatique, for example, provided a detailed methodology for quantifying GHG emissions for the project.⁴⁸

V. Beluga whales and impacts from increased ship traffic

Today, the population of St. Lawrence Beluga whales is approximately 889 – compared to as many as 10,000 around the year 1850.⁴⁹ This species, found throughout the Saguenay- St. Lawrence Marine Park, is now designated as endangered by the Committee on the Status of Endangered Wildlife in Canada (COSWIC). It goes without saying that protection of this species is now of paramount importance.

It is instructive to recall that the Energy East pipeline project, proposed by TransCanada Pipelines and ultimately withdrawn by the company, was forced to redesign part of its route and facilities when it was determined that the proposed marine terminal on the south shore of the St. Lawrence River, at Cacouna, would create risks to the species due to construction activities at the terminal and the anticipated increase in tanker traffic. What the St. Lawrence belugas are facing now, however, from the Énergie Saguenay project may be an even more serious threat to their survival. The proposed project would involve, among other things, the construction of a massive new marine terminal and then a new stream of large LNG tankers visiting three to four times a week all in or near the heart of their habitat in the Saguenay. For these reasons, only a scrupulously conducted evaluation of the potential impacts of the Énergie Saguenay project on this special and vulnerable Beluga whale population is acceptable.

Unfortunately, the EIA for the Énergie Saguenay project does not meet acceptable standards, much less represent a carefully conceived and scrupulously conducted evaluation of the potential threats to the Beluga population. A large part of the problem derives from the use of outdated information about the Beluga population and a seeming lack of care with respect to the collection and review of important studies on the topic.

Équiterre notes that the Guidelines, in section 6.1.8 on Species at Risk and Special Status Species, specifically asks proponents to include in their EIAs “any published studies that describe the regional importance, abundance and distribution of species at risk and special status species. The existing data must be supplemented by surveys, if required.” With this specific Guideline instruction in mind, it is extremely disappointing and in fact disturbing that neither the January 2019 full EIA nor the May 2019 revised Summary EIA make any reference to an important study on the St-Lawrence Beluga population

⁴⁸ Ibid.

⁴⁹ Website, Saguenay- St. Lawrence Marine Park, <http://parcmarin.qc.ca/get-to-know/>.

published in July 2018 by Fisheries and Oceans Canada (“DFO”), in connection with the Canadian Science Advisory Secretariat for the Québec Region.⁵⁰ The EIA does mention an older DFO report published in 2012 on the program for re-establishing the Beluga population,⁵¹ but omitted any reference to a review of this plan and its effectiveness published by DFO in 2017.⁵²

The new DFO study is particularly pertinent not just for its recency, but for its subject matter: the study examined plans to build two new marine terminals: a terminal on the north shore at Sainte-Rose-du-Nord area and a terminal in the Saguenay borough of La Baie, for the Énergie Saguenay project. The paper notes that:

The two new terminals are to be constructed at the northern edge of the St. Lawrence Estuary beluga’s range in the Saguenay. To reach the new terminals, vessels will have to cross very important beluga habitat, including critical habitat as defined in the recovery strategy.⁵³

It is not possible given various constraints to present, here, the details of this important paper, but we encourage CEAA, if it has not already done so, to instruct GNLQ immediately to review and respond to the document. Équiterre notes that the document should also prove valuable to the proponent’s knowledge base because it contains an extensive list of sources that could also be consulted. As well, the study mentions important information on the fact that the larger whale species that sometimes visit the estuary, like the Fin Whale and Humpback Whale are particularly vulnerable to ship collisions. The study also addresses the issue of noise impacts on the ability of the Beluga to communicate.

The omission of the DFO July 2018 Beluga report is even more inexcusable in light of the fact that Section 9 of the Guidelines specifically indicated that “The proponent should maximise the use of existing material that is relevant to marine shipping activities associated with the Project which is beyond proponent’s care and control and taking place in the Beluga’s critical habitat” as well as in the Saguenay-St. Lawrence Marine Park and in several Innu communities. In Section 9.1, the proponent is instructed to consider the effects of marine shipping associated with the project on a variety of valued components, “including marine mammals, particularly the Beluga.”

Équiterre implores CEAA to ensure that the proponent reviews and acknowledges the information in the DFO study concerning estimating ship traffic, both baseline and expected increases. The study’s statement that “The two Saguenay harbour projects will triple current traffic in the Saguenay from 450 to almost 1,300 transits per year” is extremely concerning.

Équiterre strongly encourages any and all actions that CEAA and other branches of the federal and provincial governments can take in order to help preserve the special St. Lawrence Beluga population.

⁵⁰ DFO. 2018. Potential Effects of the Construction of Marine Terminals in the Saguenay Fjord on the St. Lawrence Beluga Whale and its Habitat. DFO Can. Sci. Advis. Sec., Sci. Resp. 1018/025, available at: http://www.dfo-mpo.gc.ca/csas-sccs/Publications/ScR-RS/2018/2018_025-eng.pdf.

⁵¹ DFO. 2012. Recovery Strategy for the beluga whale (*Delphinapterus leucas*) St. Lawrence Estuary population in Canada. Species at Risk Act Recovery Strategy Series. Fisheries and Oceans Canada, Ottawa.

⁵² DFO. 2017b. Review of the Effectiveness of Recovery Measures for St. Lawrence Estuary Beluga. Report prepared for Fisheries and Oceans Canada, Ottawa.

⁵³ *Supra* note 43, p. 1.

This concludes our comments. Équiterre thanks CEAA for the opportunity to present the comments above, looks forward to additional engagement with CEAA concerning this project and appreciates that we have the right to provide additional comments to CEAA at any time throughout the process.