

# STRATEGIC ENVIRONMENTAL ASSESSMENT

- Of the entire hydrocarbon option

May 2016



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Bibliothèque et Archives nationales du Québec, 2016

ISBN : 978-2-550-76604-9 (PDF)

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N° de publication : E06-02-1609

## ACKNOWLEDGEMENTS

We would first like to point out that the strategic environmental assessment (SEA) of the entire hydrocarbon option on the overall hydrocarbon option and the SEA specific to Île d'Anticosti were guided by the following goals:

- Conduct work in a rigorous and structured manner
- Acquire new knowledge based on science
- Conduct an objective, integrated analysis of the environmental, social, and economic issues
- Set stringent safety and security requirements and environmental standards based on best practices in order to modernize the legislative and regulatory framework
- Be attentive to citizens' concerns, inform them, and act responsibly and transparently

The work was overseen by a steering committee of government representatives and independent experts from the academic community. We would like to thank these experts for their commitment and for their critical input throughout the SEA process:

- Michel A. Bouchard, Full Professor, Université de Montréal, and Senior Research Associate, McGill-UNEP Collaborating Centre on Environmental Assessments
- Nathalie de Marcellis-Warin, Associate Professor, École polytechnique de Montréal, and Vice President, CIRANO
- Maurice Dusseault, Professor, University of Waterloo
- Christiane Gagnon, Full Professor, Université du Québec à Chicoutimi, and Researcher at Centre de recherche sur le développement territorial
- Pierre-Olivier Pineau, Full Professor, HEC Montréal
- Ariane Plourde, Director, Institut des sciences de la mer de Rimouski, Université du Québec à Rimouski

We would also like to thank the researchers who helped carry out knowledge assessments and studies as part of the Additional Knowledge Acquisition Plan (AKAP) for the SEA of the entire hydrocarbon option and the SEA specific to Île d'Anticosti. The following individuals also contributed to the SEAs:

- Lynda Roy, SEA Coordinator and Steering Committee Secretary
- Claude Leblanc and Charles Lamontagne, Society Focus Area Coordinators
- Georges Gangbazo, Environment Focus Area Coordinator

- Pascal Perron, Technical Aspects Focus Area Coordinator
- Martin Labrecque, Economy Focus Area Coordinator
- Xavier Brosseau and Pascal Brière, Transport Focus Area Coordinators
- Dick McCollough
- Maryse St-Jean
- Mireille Paul
- Pierre Rhéaume

We also thank the following Québec government ministries for their close collaboration:

- Ministère des Finances du Québec
- Ministère de la Sécurité publique
- Ministère des Transports, de la Mobilité durable et de l'Électrification des transports
- Ministère des Affaires municipales et de l'Occupation du territoire
- Secrétariat aux affaires autochtones
- Ministère des Forêts, de la Faune et des Parcs
- Ministère de la Santé et des Services sociaux

Thanks also to the interest groups and industry representatives that took part in the public consultation on SEAs and to Aboriginal nations for their contribution. The points of view expressed, the concerns and issues raised, and the proposals submitted helped significantly improve the reports that were produced.

Lastly, we would like to point out that this report on the SEA specific to Île d'Anticosti, as well as the knowledge assessments and studies conducted as part of the AKAP are meant to be an informative tool to help the Government of Québec in its decisions about oil and gas development on Île d'Anticosti.

## Cochairs

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Deputy Minister of Energy  
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## PLEASE NOTE:

This document does not contain all the information provided in the consultation document. Anyone interested in reading all the results may consult the documents produced, including the report on the public consultation and the studies conducted as part of the strategic environmental assessments, which are available online at **[hydrocarbures.gouv.qc.ca](http://hydrocarbures.gouv.qc.ca)**.

## LIST OF ACRONYMS

|          |                                                                                                          |
|----------|----------------------------------------------------------------------------------------------------------|
| CVIEPA:  | Centre de vigilance et d'information sur les enjeux pétroliers à Anticosti                               |
| SEA:     | Strategic environmental assessment                                                                       |
| GHG:     | Greenhouse gas                                                                                           |
| EQA:     | Environment Quality Act                                                                                  |
| MDDELCC: | Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques |
| MEES:    | Ministère de l'Éducation et de l'Enseignement supérieur                                                  |
| MERN:    | Ministère de l'Énergie et des Ressources naturelles                                                      |
| MFFP:    | Ministère des Forêts, de la Faune et des Parcs                                                           |
| RCM:     | Regional county municipality                                                                             |
| MSP:     | Ministère de la Sécurité publique                                                                        |
| MTMDDET: | Ministère des Transports, de la Mobilité durable et de l'Électrification des transports                  |
| AKAP:    | Additional Knowledge Acquisition Plan                                                                    |
| WWPR:    | Water Withdrawal and Protection Regulation                                                               |
| RPNGUR:  | Regulation respecting petroleum, natural gas and underground reservoirs                                  |
| SEPAQ:   | Société des établissements de plein air du Québec                                                        |
| ECRC:    | Eastern Canada Response Corporation                                                                      |
| SOPFEU:  | Société de protection des forêts contre le feu                                                           |
| SPEDE:   | Cap-and-trade system for greenhouse gas emission allowances                                              |



## OVERVIEW

A strategic environmental assessment (SEA) is an analytical and participatory process carried out before a strategic decision is made. The goal of an SEA is to incorporate environmental considerations into policies, plans, and programs and to assess their impacts on economic and social considerations to inform decision making.<sup>1</sup>

- The SEA on the overall hydrocarbon option (SEA of the entire hydrocarbon option) and the SEA specific to Île d'Anticosti made it possible to:
- Assess current knowledge and the knowledge acquired through the Additional Knowledge Acquisition Plan
- Identify the potential environmental, social, and economic impacts
- Determine mitigation measures to develop resources responsibly while protecting people and property and respecting the environment
- Establish the legal and regulatory best practices that should apply to this industry
- Define the additional knowledge that the government or industry needs to acquire

These SEAs made it possible to identify additional knowledge requirements, which are summarized in Section 4 for the SEA of the entire hydrocarbon option and in Section 5 for the SEA specific to Île d'Anticosti. Much of this knowledge could be acquired either during oil and gas exploration work or production, depending on the conditions and requirements the government decides to include in the new legislative and regulatory framework.

It is worth mentioning that the work completed and the additional knowledge acquired as part of the SEA of the entire hydrocarbon option and SEA specific to Île d'Anticosti largely helped to fill the knowledge gaps identified in the SEA on shale gas and in previous SEAs.

The overview presents the main considerations that the government should take into account in its thinking and ultimate decisions on the oil and gas industry.

<sup>1</sup> Canadian Environmental Assessment Agency, 2012, André et coll.

## Public consultation

The public consultation conducted as part of the SEAs revealed the apprehensions felt by the communities and citizens concerned by the transportation, exploration, and possible future development of oil and gas.

Most of the citizens and interest groups that took part in the public consultation said they were opposed to oil and gas exploration and development (both onshore and off), and hydraulic fracturing in particular.

Representatives of the Aboriginal communities brought up a number of points, including First Nations rights, their interest in territorial governance, and the government's obligation to consult with them.

Industry and economic stakeholders have asked the government to put in place conditions conducive to oil and gas development, maximize the economic benefits, and overhaul the legislative and regulatory framework so that they incorporate the best practices currently in force.

The public consultation report presents all the positions, concerns, issues, and proposals expressed at the consultation sessions and in the briefs submitted. They are summed up in Section 1.2 of this document, while Table 5.1 in Section 5.2.3 puts the opinions and suggestions submitted into perspective, based on the objectives of the legislative and regulatory framework.

Two opinion polls conducted in 2014 and 2016 on a sample population of about 1,000 people provide an overview of public opinion on the possibility of Québec developing its oil and gas resources.<sup>2</sup>

## Main findings and recommendations of the SEA of the entire hydrocarbon option

Oil and gas exploration and development raises a number of concerns and challenges with regard to sustainable development for all stakeholders (businesses, governments, local communities, civil society, etc.), particularly given the non-renewable nature of these resources and the GHG emissions associated with them.

No such project in Québec is far enough along to envision commercial production in the short term. Once the presence of resources is confirmed and their extent measured, feasibility and economic studies will be conducted to identify which reserves are commercially producible based on the prevailing economic, technical, and regulatory conditions at that time. Some of the main factors at play include resource price forecasts, production costs, and the cost of building the required facilities.

<sup>2</sup> Perception des Québécois à l'égard de l'exploration et de l'exploitation du pétrole, 2014, CROP, for Fédération des chambres de commerce du Québec (FCCQ), [http://stream1.newswire.ca/media/2014/02/19/20140219\\_C5292\\_DOC\\_FR\\_36851.pdf](http://stream1.newswire.ca/media/2014/02/19/20140219_C5292_DOC_FR_36851.pdf).  
Le pétrole au Québec, February 2016, Léger, pour le compte de l'Institut économique de Montréal (IEM), [http://www.iedm.org/files/sondage0216\\_fr.pdf](http://www.iedm.org/files/sondage0216_fr.pdf).

**The government** must develop a strict legislative and regulatory framework to make it possible to:

- Develop resources responsibly in a manner that is respectful of the environment, protects people and property, and minimizes GHG emissions
- Address the issues brought up by representatives of the Aboriginal communities regarding First Nations rights, their interest in territorial governance, and the government's obligation to consult with them
- Get local and regional communities more involved in the decision making process
- Plan development activities

The legislative and regulatory framework on oil and gas exploration and development must draw on the knowledge acquired and best practices identified in the course of the five government SEAs.

The government must put mechanisms in place to reduce risk factors and avoid the negative impacts associated with high volume hydraulic fracturing stimulation procedures in order to satisfy the precautionary principle and meet its environmental safety obligations.

The government must require project proponents to take the necessary measures to eliminate or mitigate the impacts of their projects and provide a detailed plan of their fracturing operations. The plan would need to include water management procedures, the list of additives used, the methods used to ensure well integrity, and the safety and security measures applied to fracturing work.

In addition, the government should require project proponents to report all incidents caused by their fracturing operations, including water contamination, chemical spills, and seismic activity.

To take into account the environmental impact and citizens' concerns, development projects and offshore drilling operations must be subject to the EPEIS.

Moreover, the government must conduct an indepth review of the authorization regime set out in the *Environmental Quality Act*. This review will have an impact on the gas and oil industry as well as other industrial sectors.

In addition, given the gaps identified, the government must implement an interministerial<sup>3</sup> and intergovernmental collaborative approach to improve the legislative and regulatory framework for this aspect of the gas and oil industry.

<sup>3</sup> The interministerial approach needs to include Ministère de la Sécurité publique; Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques; Ministère de l'Énergie et des Ressources naturelles; and Régie du bâtiment.

Lastly, the government must foster the social acceptability of projects by:

- Reconciling the various visions of land development
- Implementing mechanisms to allow local communities to play a more active role in territorial planning
- Promoting development of local expertise
- Developing tools to help project proponents, local and regional authorities, and Aboriginal communities negotiate agreements on sharing the spinoffs and benefits of oil and gas development projects
- Studying the possibility of establishing a single access point to give project proponents useful information on developing their projects and to keep the public informed on the nature of the projects that have been submitted to government bodies for authorization or are already underway
- Working with local and regional authorities to plan the safety rules and measures that need to be applied to facilities and operations and to put in place emergency measures to protect people in the event of an incident
- Implementing tools to improve the transparency of the consultation and decision making processes
- Developing consultation mechanisms to allow local, regional, and Aboriginal communities to get involved in the development of oil and gas projects and have a real influence over decision making processes

For its part, **industry** must take all the necessary measures to mitigate, or eliminate, the social and environmental impacts that oil and gas exploration and development can generate.

Through its technological choices and operations management, industry must, over the short, medium, and long term, strive to ensure people's safety and security and quality of life, protect property and the environment, maintain the integrity of its operations, optimize resource recovery, and see to the maintenance and restoration of its sites.

It must also take the necessary steps to foster the social acceptability of its projects by undertaking to:

- Build relationships of trust with local stakeholders, beginning from the project design phase
- Share information in a clear and transparent manner and keep the population informed about all the projects planned in the region
- Draw up a social and economic profile of the communities and the region prior to the development of an oil or gas project, taking into account the established and anticipated uses of the land, the dynamic of the communities, their respective regional development visions, their values and expectations, and the expected impacts of the project

- Develop the project in a way that takes into account the social and economic profile and document the potential impacts as well as the social, environmental, and economic challenges
- Put in place mechanisms to foster the participation of local communities and stakeholders in project development and monitoring
- Maximize the local benefits, notably by drawing on local expertise during project development
- Sign agreements with local authorities and Aboriginal communities, where possible, to foster the sharing of project spinoffs and benefits

### *Local and regional authorities*

- Local and regional authorities should:
- Determine compatible areas, as well as the land use allocations and regulations needed to accommodate oil and gas development projects
- Take the oil and gas industry into account in their regional development vision
- Work with project proponents to establish rules for using municipal infrastructure
- Work with project proponents to plan the safety and security rules and measures that will apply to facilities and operations and put in place emergency measures to protect people and the environment in the event of an incident
- Facilitate the exchange of information and discussions between industry and citizens with a view to reconciling the different forms of land use

### *Citizens and civil society stakeholders*

Citizens and civil society stakeholders should:

- Get more involved in the participatory mechanisms at every project stage
- Express their concerns, expectations, and needs, and share local knowledge with project proponents and the government to foster the project's seamless integration into the community

The SEA on the overall hydrocarbon option, the SEA specific to Île d'Anticosti, and the previous SEAs (on the marine environment and shale gas) made it possible to identify the current state of knowledge and acquire information needed to help define government policy directions with respect to the environmental, economic, technical, and safety issues associated with the gas and oil sector.

The SEAs, the public consultations and the discussions with the Aboriginal communities have all informed the Government of Québec's thinking on this industry and the development of a strict and rigorous legislative and regulatory framework that will make it possible to:

- Develop resources responsibly in a manner that is respectful of the environment, protects people and property, and minimizes GHG emissions
- Maximize the benefits of oil and gas exploration and development for local communities, Aboriginal people, and all Quebecers and ensure they are compensated for any externalities these activities may generate
- Get local communities more involved in the decision making process

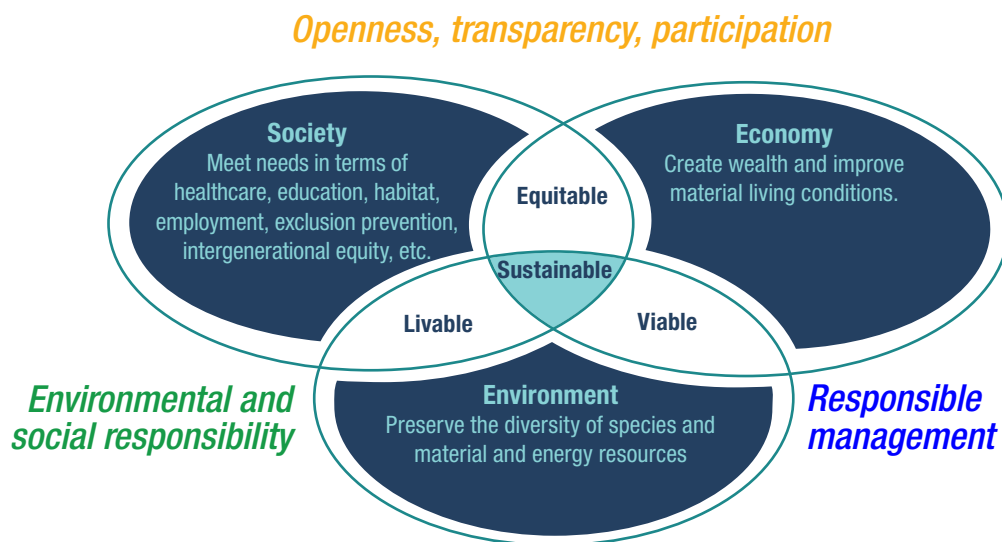
It is important to keep in mind that, even though Québec is committed to the path toward energy transition, by developing its resources it could replace a portion of the imported oil and gas it currently uses—and on which it will continue to depend for a number of years—while at the same time strengthening its energy security and improving its trade balance. Moreover, royalties and the proceeds from the sale of emission allowances could be used to finance Québec's transition to renewable energies and energy efficiency measures.

## Modernizing the legislative and regulatory framework

To guide the development of a legislative and regulatory framework specific to the oil and gas sector that incorporates the principles of sustainable development, three guiding statements (Section 5.2.1) have been put forward (detailed description and diagram to come):

1. Responsible management
2. Environmental and social responsibility
3. Openness, transparency, and participation

### Guiding statements for the development of a legislative and regulatory framework with a view to sustainable development



Source : Les voies du développement durable : économiquement efficace, socialement équitable et écologiquement soutenable, Institut national de la statistique et des études économiques (INSEE), 2008

## Responsible management

Responsible resource management refers to the governance framework that the government must put in place to protect people and property, sustainably use and develop the land, adequately protect the environment, and maximize the collection and sharing of rents, the economic benefits and compensation for externalities.

Here are the main objectives that need to be pursued and the main issues that the government needs to focus in the area of responsible hydrocarbon management (detailed in Section 5.2.3):

### *Constraint zones*

- Determine the resources and constraint zones to be protected and increased or expanded, as needed.

### *Legal framework*

- Define and adopt a specific legal framework for hydrocarbons.

### *Royalty regime and sharing of economic rents*

- Define and adopt an optimal royalty regime and ensure the balanced sharing of economic rents.

### *Compensation for externalities*

- Determine the mechanisms that should be used to compensate for externalities associated with oil and gas exploration and development.

### *Informed decision making*

- Put in place the necessary conditions for informed decision making.

## Environmental and social responsibility

Environmental and social responsibility consists of developing legal and regulatory provisions and establishing guidelines in order to regulate industry activities and practices and ensure that resources are developed responsibly in a manner that is respectful of the environment, protects people, communities, and property, and ensures the optimal recovery of resources.

More specifically, it aims to define the requirements that will be imposed upon project proponents to ensure that they take all necessary steps to mitigate, or eliminate, the environmental and social problems that oil and gas exploration and development can generate.

Here are the main objectives that need to be pursued and the main issues that government needs to focus on in the area of environmental and social responsibility:

### *Environmental and social accountability*

- Specify the required civil liability guarantees and the deposits required for environmental, personal, or property damage and for site restoration and maintenance, as well as the sanctions imposed for noncompliance with laws and regulations.

### *Protecting the environment, people, and property*

- Define the regulations to implement to ensure environmental protection and the safety and security of people and property, draw up guidelines, and apply them strictly and systematically

### *Sharing of spinoffs and benefits with local, regional, and Aboriginal communities*

- Encourage project proponents to adopt agreements ensuring that the spinoffs and benefits of an oil and gas development project would be shared with local, regional, and Aboriginal communities.

## Openness, transparency, and participation

Openness has to do with the mechanisms that enable citizens, communities, and stakeholders from civil society to monitor, participate in, and influence administrative processes and the projects developed, as well as the way industry goes about conducting oil and gas exploration and development operations.

Openness fosters transparency, which raises the curtain on the decision making process by providing ready access to information.

Openness fosters participation by making it easier for citizens and local and Aboriginal communities to take part in public participation processes, from information and consultation to decision making.

More specifically, this refers to the concept of social acceptability (presented in Section 3.1), which underpins the concepts of openness, transparency, and participation.

Here are the main objectives that need to be pursued and the main issues that government needs to focus on in the area of openness, transparency, and participation:

### *Concerted territorial governance*

- Implement mechanisms to facilitate the work of local and regional authorities in planning oil and gas development activities on their land.

### *Improved transparency*

- Implement effective, flexible mechanisms to improve the transparency of consultation and decision making processes
- Study the possibility of establishing a single access point to give project proponents useful information on developing their projects and to keep the public informed on the nature of the projects that have been submitted to government bodies for authorization or are already underway

### *Consultative approach*

- Establish consultation mechanisms to give local and Aboriginal communities a real say in the development of oil and gas projects and real influence over decision making processes.

