Anatomy of a Liquefied Natural Gas Receiving Terminal in Atlantic Canada—an Overview of the Legal and Regulatory Hurdles

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A new industry is developing in Canada due to recent studies indicating that demand for liquefied natural gas (LNG) supply in Canada and the U.S. is on the rise. As a result, the construction stage has begun for a number of proposed LNG receiving terminals in and around Atlantic Canada. The authors provide an overview of the current issues facing these LNG projects, such as their impact on fisheries, the environment, and Aboriginal rights. They discuss the regulatory framework governing these areas, the due diligence required to identify and address areas of concern, some commercial issues and safety and security issues unique to LNG projects, and also provide an update on the ongoing race to supply natural gas to the U.S. northeast.

[Une nouvelle industrie est en train de voir le jour au Canada à la suite d'études récentes montrant un accroissement de la demande pour du gaz naturel liquéfié (GNL) au Canada et aux États-Unis. L'étape de la construction est donc amorcée pour de nombreux projets de terminaux de réception de GNL dans la région du Canada atlantique. Les auteurs donnent un aperçu des défis actuels que doivent relever ces projets de GNL, par exemple leurs incidences sur la pêche, sur l'environnement et sur les droits des Autochtones. Ils discutent du cadre réglementaire qui régit ces domaines, des contrôles préalables requis pour cerner et alléger les préoccupations ainsi que de diverses questions d'ordre commercial et des enjeux en matière de sécurité spécifiques aux projets de GNL; ils font également une mise à jour sur la course qui se joue actuellement pour alimenter le Nord-Est des États-Unis en gaz naturel.]

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Introduction
Net imports of natural gas to the United States (U.S.) have risen substantially since the mid-1980s, giving rise to a dramatic increase in pipeline imports from Canada. Although the growth of such imports has stalled in recent years, Canada continues to be the largest exporter of natural gas to the U.S., accounting for eighty-six per cent of their gross receipts of foreign natural gas.¹

Despite the fact that U.S. imports of liquefied natural gas (LNG) were lower for most of 2006 due to factors such as warmer than normal temperatures and LNG traders' preference for the higher prices currently being paid in the European and Asian markets,² there continues to be great demand for natural gas-related projects and infrastructure. Much of the recent activity involves construction of LNG receiving (and regasification) terminals along the Atlantic coast needed to supply natural gas to the heavily populated U.S. northeast region and surrounding areas. LNG receiving terminals are required to convert LNG to natural gas and are considered to be the least costly part of the LNG chain.

This article will explore the various aspects of an LNG receiving terminal, including regulatory requirements and other hurdles proponents

². Ibid. at 6.
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I can expect to encounter; it will also provide an update on currently proposed LNG projects in the U.S. northeast.

I. Current LNG projects in the Northeast

1. Status update of LNG receiving terminals

As of May 2007, there were five operating LNG receiving terminals in all of North America (excluding Puerto Rico), with a combined peak send-out capacity of nearly six billion cubic feet per day (Bcf/d). These were Excelerate Energy’s Gulf Gateways Energy Bridge in offshore Louisiana, the most recent North American LNG terminal, with a peak send-out capacity of 0.5 Bcf/d; Dominion’s Cove Point LNG in Lusby, Maryland (1.0 Bcf/d); Suez Energy North America’s Everett LNG terminal in Everett, Massachusetts (1.035 Bcf/d); Southern LNG/El Paso Corp.’s Elba Island LNG terminal in Elba Island, Georgia (1.2 Bcf/d); and Southern Union’s Trunkline LNG terminal in Lake Charles, Louisiana (2.1 Bcf/d).³

Currently, LNG imports through these existing receiving terminals play a relatively small role in supplying the U.S. gas markets. However, as the domestic supply-demand gap widens and as these terminals expand, their role will likely become more significant over the next few years. While only one of these operating terminals is located in the northeast (the Everett, MA project), there are several other proposed terminals for this region competing for the right to supply natural gas to that region. Among these are the following:

1. Repsol YPF/Irving Oil’s Canaport LNG LP project near Saint John, New Brunswick
   - Planned Send-Out Capacity: 1.2 Bcf/d
   - Storage Capacity: 3 x 160,000 cubic meters (m³)
   - Planned in-service: End of 2008
   - Status: As of September 2007, the Canaport LNG project was on schedule with completion of approximately thirty-five per cent of overall construction. At the end of May 2007, the National Energy Board approved the construction and operation of a 145-kilometre pipeline by Emera Brunswick Pipeline Company Ltd. from the Canaport LNG terminal to the Maritimes and Northeast Pipeline (M&NP) at Baileyville,

Maine and approved the proposed tolls to be charged on this pipeline.\(^4\)

2. 4Gas/Suntera’s Maple LNG project in Goldboro, Nova Scotia
   - Planned Send-Out Capacity: 1 Bcf/d
   - Storage Capacity: 3 x 160,000 m\(^3\)
   - Planned in-service: 2010
   - Status: Maple LNG received environmental approval in March 2007 and is expected to apply for construction and operation permits by May 2007. Construction and operation of their LNG receiving terminal will be integrated with a petrochemical complex and cogeneration plant on an adjacent site. The project will be located adjacent to the Maritimes and Northeast Pipeline (M&NP) intake station at the Sable Island Gas Plant at Goldboro.\(^5\)

3. Kestrel Energy’s Downeast LNG project in Robbinston, Maine
   - Planned Send-Out Capacity: 0.5 Bcf/d
   - Storage Capacity: 1 x 160,000 m\(^3\)
   - Planned in-service: 2010
   - Status: An application was filed in December 2006 with the Federal Energy Regulatory Commission (FERC) for approval to construct and operate an LNG terminal and lateral pipeline connecting to the M&NP at Baileyville, Maine, with approvals expected in early 2008. There is an ongoing issue regarding passage of LNG tankers through Head Harbour Passage, which is considered a Canadian waterway, to the access terminal (see the discussion below on Passamaquody Bay).\(^6\)

4. Quoddy Bay LNG project in Pleasant Point, Maine
   - Planned Send-Out Capacity: Up to 2 Bcf/d
   - Storage Capacity: 3 x 160,000 m\(^3\)
   - Planned in-service: 2010

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- Status: A FERC application was filed in December 2006 with approvals expected in early 2008. This project is to be located partially on the Passamaquody Tribe’s Indian Township Reservation, 40 miles east of the M&NP in the town of Princeton, and it is also affected by the Head Harbour Passage issue.

In addition to the above-mentioned proposed LNG receiving terminals, there are many more proposed terminals in the northeastern U.S. and Quebec at various stages of the environmental assessment/regulatory review process. It is widely believed that the existing northeastern market will not be able to support the large number of proposed terminals. Many of these projects will not see completion due primarily to substantial local opposition, lack of available pipeline capacity, and/or absence or delays in long-term LNG supply contracts. Only those projects that are able successfully to overcome these hurdles and obtain regulatory approvals and secure LNG supply in a timely fashion are likely to be successful.

Even if a proponent of an LNG terminal is successful in obtaining regulatory approvals, the project must ultimately be reconciled with global LNG supply, financing, and market issues. Total capital costs required to construct an LNG receiving terminal are approaching $1 billion. Factors that can affect the overall cost include: (i) proximity to existing pipelines, (ii) regasification technology, (iii) marine and port environment such as proximity to deep water, (iv) land and right of way requirements, (v) soil stability and seismic activity, (vi) local labour and construction costs, (vii) environmental sensitivity and fishing activities in nearby waters, (viii) public consultation costs and associated legal expenses, and (ix) number of storage tanks constructed. The costs associated with obtaining permits and environmental assessments are minor in comparison to the other costs, but can be much more time-consuming. In addition to the large capital costs involved, a project proponent must consider future operating costs such as personnel, energy, maintenance, and safety and security expenses.

Given the large capital investment and operation costs, project proponents must be confident that they will be able to earn an acceptable return on their investment in a reasonable period of time. The best way to ensure this is to procure long-term LNG supply contracts and eliminate the risks associated with short-term or medium-term fluctuations in spot gas

8. As an example, despite receiving environmental approvals and beginning the construction stage, Anadarko’s Bear Head LNG project in Point Tupper, Nova Scotia, was abandoned in early 2007 due to difficulties in securing LNG supply.
prices. Reliance on the spot markets carries many risks such as diversion of LNG cargo mid-destination upon receiving a more attractive offer. Such uncertainty can greatly impact gas availability and prices at peak demand periods and clearly illustrates the preference for long-term supply contracts with guaranteed delivery schedules and supply of LNG.

2. **Newfoundland transshipment and storage terminal**

While LNG receiving/regasification terminals are the most common type of LNG projects currently being developed in the northeast, there are other LNG related projects under development. One such project is proposed by Newfoundland LNG Ltd. (NLNG), which has proposed the development of an LNG transshipment and storage facility at Grassy Point, Placentia Bay, Newfoundland and Labrador. Commencing operations in 2010, the facility will provide transshipment and storage services for LNG importers and providers in Canada and the northeastern U.S. As proposed, the facility will include three jetties with berthing capacity for tankers up to 265,000 cubic metres capacity (345 metres in length), eight LNG storage tanks each with 160,000 cubic metres capacity, and supporting infrastructure.

The project is currently undergoing environmental assessment analysis involving both the federal and provincial governments. In January 2007, the provincial government granted a conditional release from assessment pending completion of employment equity and environmental protection plans and a risk assessment study. NLNG anticipates federal environmental review will be completed in 2008.

II. **Jurisdictional issues**

A concern that often arises in the early planning stages of LNG facilities is that of jurisdiction. Many aspects of LNG facilities require the involvement of multiple jurisdictions. At first glance, it appears that the National Energy Board (NEB), a federal agency, has jurisdiction over many aspects of LNG projects in Canada, given the broad definition of "pipeline" in the *National Energy Board Act*:

> "pipeline" means a line that is used or to be used for the transmission of oil, gas or any other commodity and that connects a province with any other province or provinces or extends beyond the limits of a province or the offshore area as defined in section 123, and includes all branches, extensions, tanks, reservoirs, storage facilities, pumps, racks, compressors, loading facilities, interstation systems of communication by telephone, telegraph or radio and real and personal property, or immovable and movable, and works connected to them, but does not include a sewer or water pipeline that is used or proposed to be used
solely for municipal purposes.9

Although this definition appears to grant the NEB jurisdiction over any LNG project with an inter-provincial dimension, there are other factors to consider. In 1998, the Supreme Court of Canada limited the NEB’s jurisdiction over gas facilities in its decision in Westcoast Energy Inc. v. Canada (National Energy Board).10 In that case, the Court noted that provincial works or undertakings with a distinct provincial, non-interconnecting function should not be swept under federal jurisdiction and that courts need to be sensitive to provincial concerns.11 The Court explained the factors to be considered in determining jurisdiction as follows:

[T]he primary factor to consider is whether the various operations are functionally integrated and subject to common management, control and direction. The absence of these factors will, in all likelihood, determine that the operations are not part of the same inter-provincial undertaking, although the converse will not necessarily be true. Other relevant questions, though not determinative, will include whether the operations are under common ownership (perhaps as an indicator of common management and control), and whether the goods or services provided by one operation are for the sole benefit of the other operation and/or its customers, or whether they are generally available.12

To date, the involvement of the NEB in the LNG industry in Canada has been limited primarily to inter-provincial and international pipeline matters.

Many LNG projects involve construction and operation, both onshore and offshore, leading to a hybrid regulatory process. In practice, the federal, provincial, and municipal governments will typically work together to simplify the regulatory process. An example of this was seen during the early stages of the Canaport LNG project in Saint John, New Brunswick, where the provincial Minister of Environment and Local Government13 appointed a Technical Review Committee to review the proponent’s environmental impact statement. This committee was comprised of technical specialists from each of the various government agencies involved in the regulatory process, including the N.B. Workers Health, Safety and Compensation Commission, seven provincial government departments,

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9. R.S.C. 1985, c. N-7, s. 2 [NEBA].
11. Ibid. at para. 150.
12. Ibid. at para. 65.
13. Now known as the Minister of Environment.
the City of Saint John, three federal government departments, the Canadian Environmental Assessment Agency, the Atlantic Pilotage Authority, the Saint John Port Authority, and the Saint John Marine Pilots Association. The creation of such a harmonized process has many benefits including the avoidance of unnecessary confusion and duplication while ensuring a simplified process for the public and the proponent.

In addition to standard LNG receiving terminals, there are currently several proposed offshore LNG terminals in the U.S., including floating LNG terminals. This trend has not yet extended to Canada, but would no doubt involve a unique regulatory approach. The LNG industry has also recently seen the development of LNG tankers with the capacity to regasify LNG on board, which may present further jurisdictional challenges.

III. Regulatory requirements

1. Federal regulation of LNG projects

Regulation of LNG projects at the federal level generally includes NEB authorizations, environmental approvals, and safety and security requirements.

a. NEB Authorizations

As mentioned above, the NEB is the primary regulator of inter-provincial and international energy trade and pipelines in Canada and may be integral to the various approvals required by a proposed LNG facility both in the developmental stage and during operation.

First, a proponent of an LNG import facility may be required to obtain a Certificate of Public Convenience and Necessity from the NEB in order to construct and operate its terminal. The certificate will be issued only if the NEB is satisfied that the facility is and will be required by present and future public convenience and necessity, taking into account such factors as availability of gas, market conditions, economic feasibility of the terminal, financial responsibility of the proponent, and any public interest that may be affected by the granting or refusal of the application. A Certificate of this nature will also likely be required to construct or operate the pipeline connecting the terminal to the destination markets.


15. NEBA, supra note 9, s. 52.
It is possible for a proponent to obtain an exemption order to avoid the requirement of Certificate approval in certain circumstances.  

A transporter of LNG will be required to obtain a licence from the NEB prior to LNG being imported into or exported from Canada.  

A long-term licence for up to twenty-five years may be granted following a public hearing. In contrast, a short-term order for up to two years can be issued without a public hearing. A grant of such licences will depend on a number of factors. For instance, the NEB monitors the supply of, and demand for, natural gas in Canada, including the performance under existing export authorizations, to ensure that the quantity of gas exported does not exceed the surplus remaining after Canadian requirements have been met.

The NEB further has power to set tolls and tariffs for pipeline use. Pipeline companies are prohibited from discriminating in their provision of access to the pipeline and tolls must be just and reasonable and will generally be determined on a cost of service basis, rather than a market basis. Industry concern has been growing over the perceived limits that this basis for access imposes on project proponents to recover their large investments to develop LNG related facilities.

b. **Environmental approvals**

Most LNG projects will trigger federal environmental regulation under the *Canadian Environmental Assessment Act (CEAA)*, which was enacted to facilitate the objective of environmental protection by encouraging and promoting economic development that conserves and enhances environmental quality. For projects requiring a comprehensive study or panel review-level environmental assessment, such as LNG facilities, the federal Minister of the Environment must render a decision on the environmental assessment prior to the issuance of a permit, licence, or other type of decision. The decision-making process for an LNG facility continues as follows:

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17. Authorization to import/export LNG may be obtained either by a long-term import/export licence pursuant to Part VI of the *NEBA* or a short term order may be granted under the *NEBA* Part VI (Oil and Gas) Regulations, SOR/96-244.
18. *NEBA, supra* note 9, s. 62.
21. *CEAA* at para. 1 of the Preamble.
22. LNG Projects typically fall under the *Comprehensive Study List Regulations*, S.O.R./94-638 of the *Canadian Environmental Assessment Act*. Subsection 13(d) of these regulations lists the construction of a facility for the liquefaction, storage or regasification of liquefied natural gas, with a liquefied natural gas processing capacity of more than 3000 t/d or a liquefied natural gas storage capacity of more than 50,000 t.
typically includes a thorough review of environmental effects caused by the construction and operation of the facility and often will involve an element of public consultation. The public will have an opportunity to comment on both the scope of the project and the proposed measures to be taken to address environmental issues.

Certain portions of the environmental assessment may be administered outside the auspices of the CEAA. For instance, any new or altered works in, on, or over navigable water require approval from the Regional Superintendent of Navigable Waters Protection. This approval is obtained after a positive environmental assessment from Transport Canada Environmental Affairs, and is required under the *Navigable Waters Protection Act*. Similarly, if certain elements of a project, such as the installation of a jetty or pipeline watercourse crossing, may cause harmful alteration, destruction, or disruption of fish habitat, an authorization pursuant to s. 35(2) of the *Fisheries Act* must be obtained. In addition, the management of sediment and material from certain construction and maintenance activities, such as dredging, side-casting, and blasting, may require a Disposal at Sea Permit pursuant to the *Canadian Environmental Protection Act*, triggering an environmental assessment under the CEAA.

The size of storage tanks used in most LNG receiving terminals will also likely invoke environmental review requirements. A proponent intending to use storage tanks capable of storing a quantity of LNG in excess of 4.5 tonnes will be required to prepare an environmental emergency plan setting out the prevention of, preparedness for, response to, and recovery from, an environmental emergency in respect of a stored substance.

*Safety and security requirements*

The *Marine Transportation Security Regulations* require LNG terminal facilities, ports and ships to submit a security plan for approval by Transport Canada Marine Security at least six months prior to operation. Prior to operating in Canadian waters, an LNG tanker will also require a number of operational certificates that will be issued upon positive safety inspection.

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23. *Supra* note 20, s.16, 21.
26. S.C. 1999, c. 33 [*CEPA*].
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of the tanker. In addition, an order from the Canadian Transport Agency is required for the transportation of LNG by railway. A proponent of an LNG project may elect to proceed with a Termpol Review Process, which is governed by a non-regulatory code. The process is administered largely through the office of Transport Canada Marine Safety. The purpose of the Termpol Review Process is to evaluate operational ship safety, route safety, and environmental concerns associated with the location, construction and operation of the terminal. A Termpol Review Process requires that consideration be given to a range of subject matters. As stated on the Termpol website, these include:

- the potential effects of increased shipping activity on existing regional shipping networks and fishing ground activities;
- the perceived environmental concerns attributable to pollutant cargoes carried by the additional ships;
- perceived risks to communities along the route to the terminal or transshipment site in the case of ships carrying commodities such as, but not limited to, those considered in this document which may pose a concern to public safety or health;
- the navigational safety of the ship route(s) leading to a proposed new, modified, or recommissioned marine terminal or transshipment site;
- the level of services required to facilitate safe navigation such as fixed and floating aids, vessel traffic services, offshore electronic position fixing systems, requirements for pilotage and radiocommunications along the ship route(s);
- the suitability of the design ship;
- the design ship's manoeuvring characteristics, navigational and radiocommunications equipment, its cargo containment and handling systems in terms of operational safety;
- the adequacy of the design ship's berth and related terminal service requirements;
- pollution prevention programs; and
- marine contingency planning and related emergency counter-measures.

31. Canada Transportation Act, S.C. 1996, c.10, s. 98(2); 101(3).
33. Ibid., s. 1.3.
Although not mandatory, a benefit of undergoing a Termpol Review Process is that it may expedite the environmental assessment process and the procurement of permits under the *Navigable Waters Protection Act*.

The federal government also has the power to regulate shipping matters. As such, all exclusion zones around an LNG terminal will need to be imposed under federal authority, either by order or regulation under the *Canada Shipping Act* or by a port authority through its powers under the *Canada Marine Act*.\(^{34}\)

Industry safety standards for the production, storage and handling of LNG have been established by the Canadian Standards Association (CSA), in CSA Z276-01: “LNG – Production, Storage and Handling” and have been adopted by most Canadian provinces. Since LNG is a relatively new industry in Canada, provincial regulators have been largely guided by their U.S. counterparts in the development of these standards. These industry standards focus on seven primary areas of safety regulation, including the strength and suitability of materials coming into contact with LNG; the reliability of systems for preventing overpressurization, vacuum conditions, or other malfunctions in vessels, piping, and equipment containing LNG; separation distances between the various elements of an LNG terminal; systems for the detection of fire and explosion hazards; provision of emergency shutdown of the terminal; active systems for the suppression of fires and the reduction of vapour cloud hazard; and training of terminal personnel. Compliance with these standards is also required during the pipeline transportation process.

2. **Provincial regulatory requirements**\(^ {35}\)

**New Brunswick**

Regulatory requirements governing the construction and operation of LNG-related facilities in New Brunswick have undergone some changes in recent years.

A proponent of an LNG terminal in New Brunswick seeking to distribute gas from an LNG facility to New Brunswick customers must obtain an LNG franchise from the newly created New Brunswick Energy and Utilities Board\(^ {36}\) (NBEUB) pursuant to the *Gas Distribution Act*.\(^ {37}\) An LNG franchise may only be granted to an owner, or part owner, of an LNG

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35. Note that this section is limited to New Brunswick and Nova Scotia since these two provinces are the only provinces in Atlantic Canada with proposed LNG receiving terminals.
36. On 1 February 2007, the ten-member NBEUB replaced the Public Utilities Board (PUB) of New Brunswick.
terminal and the LNG franchise may only be used to distribute gas by a pipeline owned or leased by the LNG terminal owner to other facilities owned, or partly owned, by the owner of an LNG terminal.\textsuperscript{38} An LNG franchise limits the supply of gas to affiliated industrial facilities within the same area as the terminal.\textsuperscript{39} Further, an owner of an LNG terminal may apply to the NBEUB for the construction of a lateral pipeline connecting the terminal with existing NEB regulated pipelines.\textsuperscript{40} Prior to authorizing such construction, the NBEUB must be satisfied as to the standards for gas quality and pressure, and that such a connection to existing pipelines will not materially prejudice local customers.\textsuperscript{41} Such a pipeline will also require a permit to construct and a licence to operate under the \textit{Pipeline Act, 2005}.\textsuperscript{42}

Pursuant to the \textit{Environmental Impact Assessment Regulation}\textsuperscript{43} under the \textit{Clean Environment Act},\textsuperscript{44} all undertakings\textsuperscript{45} which, in the opinion of the Minister of Environment, may result in a significant environmental impact must undergo an Environmental Impact Assessment (EIA) review to assess the nature and significance of a project's potential environmental effects. EIA conditions will include a requirement for a detailed Emergency Response Plan (ERP) for the LNG facility to be finalized after consultations with the local fire department and the New Brunswick Emergency Measures Organization. The objectives of the ERP are to establish, document, and communicate emergency response procedures that are protective of human health, the environment, and the facility.

A further EIA condition will be the development of an Environmental Protection Plan (EPP) for construction of the project in accordance with applicable federal and provincial environmental protection legislation and regulations. The EPP will outline all environmental protection measures to be employed during the construction and operation phases of the project. In practice, a proponent would have a tracking database itemizing all permit and approval conditions and all commitments made in the EIA for in-house

\begin{itemize}
  \item \textsuperscript{38} \textit{Ibid.}, s.6.1(1).
  \item \textsuperscript{39} \textit{Ibid.}, s.6.1(1)(b), (c) which states that each facility receiving gas from an LNG facility owner must be located in the same municipality and must consume at least 2,000 gigajoules of gas per day.
  \item \textsuperscript{40} \textit{Ibid.}, s.6.2(1).
  \item \textsuperscript{41} \textit{Ibid.}, s.6.2(2).
  \item \textsuperscript{42} S.N.B. 2005, c. P-8.5, ss. 4, 11.
  \item \textsuperscript{43} N.B. Reg. 87-83.
  \item \textsuperscript{44} R.S.N.B. 1973, c. C-6 [\textit{NBCEA}].
  \item \textsuperscript{45} Defined in s. 31.1(1) of the \textit{NBCEA} as "any enterprise activity, project, structure, work or program designated by regulation to be an enterprise, activity, project structure, work or program that may, in the opinion of the Lieutenant-Governor in Council, result in a significant environmental impact, and includes a modification, an extension, an abandonment, a demolition and a rehabilitation thereof."
administrative control. This database would include follow-up commitments to monitor environmental impacts.

A licence under the *Boiler and Pressure Vessel Act*\(^46\) is required for pumps, vaporizers, pipelines, and cryogenic lines connecting a jetty to a storage tank. Similarly, the operation of the vaporizer to the pipeline required during the regasification process may require approval issued by the provincial Department of Environment under the *Air Quality Regulation*\(^47\) and the *Water Quality Regulation*.\(^48\)

**Nova Scotia**

The Nova Scotia Utility and Review Board (NSURB) has been mandated pursuant to the *Energy Resources Conservation Act*\(^49\) to administer the *Gas Plant Facility Regulations*,\(^50\) as well as various codes of practice relating to LNG facilities in the province. In 2005, the Nova Scotia Department of Energy adopted a Code of Practice for LNG Facilities which provides guidelines for the design, construction, operation, and abandonment of land-based LNG terminals, including any offshore element forming part of these terminals.

A permit to construct from the NSURB is required to build any LNG facility.\(^51\) A licence to operate issued by the NSURB is also required prior to the commencement of operation of any gas plant facility.\(^52\) Applications for both a permit to construct and a licence to operate must include a commitment by the applicant to hire employees from the local labour force and to use local services where qualified and competitive.\(^53\) In order to abandon construction of an LNG facility, a proponent must provide at least six months notice to the NSURB along with an abandonment plan for NSURB approval.\(^54\)

The *Gas Distribution Act*\(^55\) empowers the NSURB to set rates and tolls charged by all gas distributors within the province. The criteria for determining appropriate rates and tolls include a standard of just and reasonable return, competition levels, revenue stability, non-discrimination, fairness, and rate stability.\(^56\)

47. N.B. Reg. 97-133.
48. N.B. Reg. 82-126.
49. R.S.N.S. 1989, c. 147.
51. Ibid., s.6.
52. Ibid., s.7.
53. Ibid., s.9(2)(f).
54. Ibid., s. 23.
55. S.N.S 1997, c. 4.
56. Ibid., s. 22(3).
LNG storage facilities with capabilities greater than 5000 cubic metres are classified as either Class I or Class II Industrial undertakings in the Environmental Assessment Regulations\(^\text{57}\) under the Environment Act.\(^\text{58}\) A Class I development usually requires a less onerous assessment than a Class II development, which in all cases must be referred for an environmental assessment by the Nova Scotia Environment Assessment Board and a formal public review which can include public hearings.\(^\text{59}\) While an LNG storage facility with a capacity greater than 5000 cubic meters would clearly fall under the Class I category, the classification of an LNG regasification terminal is not as clear. Such a facility could, in the discretion of the Minister of Environment, be classified as a Class II undertaking.\(^\text{60}\) An environmental assessment may be reviewed by members of the public, interest groups, and other government agencies.

Nova Scotia Environment and Labour (Occupational Health and Safety Division) monitors occupational health and safety issues through periodic inspections. Project proponents are also required to adopt and implement an emergency response plan.

3. **Siting an LNG project**

Location will be a critical issue that must be addressed in the early planning stages of an LNG project. In Canada, jurisdiction-shopping for LNG projects is limited to coastal provinces close to the U.S. border. Proximity to the destination gas market is important in controlling gas transportation expenses, which are a major factor in the economic feasibility of the project. In light of the recent increase in demand for LNG, it will be increasingly important to have an easily accessible site with a reasonable tolling structure in order to attract LNG suppliers.\(^\text{61}\)

There are, of course, other factors that must be considered when siting an LNG project. LNG facilities require deep water to accommodate the massive LNG tankers and the site should be in a remote area to avoid shipping traffic issues, as well as the effect of increased road traffic during construction, in order to minimize the effects on residential areas and business communities. LNG projects almost always provoke public concern over safety and any measures that can be taken to alleviate these concerns should be carefully considered. Members of the public

\(^{57}\) N.S. Reg. 26/95, as am. by N.S. Reg. 44/2003 [NS EAR].
\(^{58}\) S.N.S. 1994-95, c. 1.
\(^{59}\) *NS EAR*, supra note 58, s. 11.
\(^{60}\) Ibid. at Sch. A.
\(^{61}\) This is evidenced by recent reports of LNG tankers changing destinations mid-route after accepting more attractive offers at other destinations.
will undoubtedly have concerns over the likelihood of a major incident resulting from equipment failure, human error, or terrorism.

It is critical for LNG project proponents to measure community support for an LNG project during all stages of development given that important political decisions affecting the viability of a project will be made largely with the input of the affected community members. Consequently, it would be a mistake for an LNG project proponent to underestimate the will of a community. Proponents should make great efforts to educate their communities on LNG matters, since the industry remains largely foreign to most Canadian citizens. Such public involvement in decision-making processes will assist in increasing overall public satisfaction with respect to a project.

4. Passamaquoddy Bay
Recently, there has been much controversy over the proposed passage of LNG tankers through the narrow and often dangerous waters of Head Harbour Passage to access Passamaquoddy Bay. This issue has become heavily politicized in both Canada and the U.S. since two proposed LNG terminals in northern Maine announced the proposed use of Passamaquoddy Bay for the transportation of LNG to their regasification terminals. This controversy recently gained national attention when Prime Minister Harper stated in the House of Commons that the Canadian Government believed the waters of Passamaquoddy Bay to be Canadian waters, and declared that Canada would oppose the transportation of LNG through these waters. This has raised issues over the legal status of those waters and the ability of the Canadian regulators to prevent unilaterally the transportation of LNG through those waters. On one side, the Canadian government is maintaining that Head Harbour Passage is an internal Canadian waterway, where Canada has unfettered power to regulate shipping through the Canada Shipping Act, regardless of the origin of the ships. On the other hand, the American LNG companies maintain that these are territorial waters and that, under international law, foreign commercial ships should have freedom of navigation, including the right of innocent passage.

This ongoing debate indicates a need for a more cooperative approach to the governance of shared marine resources, such as those within the Passamaquoddy Bay and the Gulf of Maine. The potential for the proposed LNG terminals to impact local fisheries and aquaculture and the potential

62. Oklahoma-based Quoddy Bay LNG and Washington, D.C.-based Downeast LNG are proposing to construct LNG receiving terminals at Pleasant Point, Maine and Robbinston, Maine respectively.
Anatomy of an LNG Receiving Terminal in Atlantic Canada

social and economic impact on coastal communities suggest the need for regulatory coordination between Canada and the United States. This controversy also highlights the importance of choosing an appropriate site for an LNG receiving terminal.

IV. Fisheries impact

Most proposed LNG projects will involve some element of offshore construction and a permanent offshore structure, such as an unloading jetty, both of which can adversely affect local fishing practices. Local fishermen may see their fishing activities restricted through the imposition of safety/security exclusion zones surrounding the offshore structure, as well as shipping lane exclusion zones during the transportation of LNG tankers. This raises the issue as to whether fishermen should be compensated for losses related to restrictions on their fishing activities.

The public has the right to fish in all tidal waters up to the point where the tide ebbs and flows; however, this public right must be exercised reasonably having regard to the same rights of other people and to the public right of navigation and to private rights. It is clear that a proponent of an LNG facility does not have any legal right to interfere directly with the public right of navigation and that the public right of navigation can only be taken away by legislation. Any new or altered works in or over navigable water requires approval under the *Navigable Waters Protection Act* and a proponent of an LNG facility is required to comply with all conditions imposed by the federal Minister of Transport in relation to the use of such navigable waters.

One measure of protection for fishermen can be found in the *Fisheries Act* which provides that no person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat without authorization from the Minister of Fisheries and Oceans. The Minister may impose conditions on any proposed alteration, disruption, or destruction of habitat. Such conditions may include a requirement to enter into a compensation agreement with affected fishermen. Often, however, the Minister will implement conditions that will mitigate the effect on fish

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64. Ibid. at para. 19:50.30.
65. “Works” is defined under the *NWPA*, supra note 24, to include booms, wharfs, docks and piers and presumably includes an unloading Jetty.
68. Ibid., s.35(1)(2).
habitat and/or improve surrounding habitat, since compensation may not always be the best (or only) form of mitigating damage to fishing activities. Other measures that may be equally beneficial to affected fishermen may include: minimizing the effect on their fishing activities through effective communication of shipping schedules; funding of research for habitat preservation and improvement; and designing other programs to improve fishing habitat in or around the affected area.

In the event that the Minister of Fisheries and Oceans imposes a requirement to compensate fishermen, there are a variety of factors that can potentially affect the level of compensation including: (i) whether waters over which the project is based are public waters or privately owned water lots; (ii) levels of historical fishing catch in affected area; (iii) size of safety/security exclusion zones (during construction and operation); and (iv) frequency of navigational restrictions (e.g., during transit of LNG tankers to the berthing point).

In the event that the Minister of Fisheries and Oceans does not impose a requirement to compensate fishermen as a condition to an authorization to alter, disrupt, or destroy fish habitat, a fisherman may bring a claim for special damages. It is unlikely, however, that such a claim would be successful unless that particular fisherman can show that he or she enjoyed a personal right or benefit not shared by other fishermen in relation to the affected area and that this right or benefit is lost by virtue of the construction of the LNG terminal. However, to the extent that an LNG Terminal interferes with navigation or fishing rights common to all fishermen, there likely would be no sustainable claim for special damages. This concept was discussed in *Fillion v. New Brunswick International Paper Co.*, 69 where the New Brunswick Court of Appeal held that interference with a public right (such as the right to fish) is a public nuisance and no private right of action exists where a plaintiff suffers exactly the same interference as any other who engaged in the public right of fishing. The Court in *Hickey v. Electric Reduction Co. of Canada, Ltd.*, 70 agreed with the reasoning in *Fillion* and held that only the attorney general has the capacity to bring an action to remedy a public nuisance. The Court further opined that an individual fisherman does not have any greater grounds for complaint simply because he or she may be affected to a greater extent than others, and that the onus is on the complainant to demonstrate that their loss is special and unique.

69. [1934] 3 D.L.R. 22 (N.B.C.A.) [*Fillion*].
In any event, consultation with local fishermen impacted by the construction and subsequent operation of an LNG facility is highly important and should be done as early as possible in the development process. It is important to maintain open lines of communication between affected fishermen and project personnel to avoid events such as protesting or establishment of a water blockade which could prevent construction progress or restrict LNG tankers from accessing their berth. Such actions can result in safety hazards and/or schedule delays, both of which will lead to increased overall project costs.

V. Aboriginal consultation

By virtue of its fiduciary relationship to Aboriginal peoples, the Crown has an obligation to protect and serve aboriginal interests. Specifically, Aboriginal rights holders are distinct from other groups because they have the right to be consulted with respect to any policies or activities that might infringe on their rights. Although Canadian courts have not yet judicially considered any specific duty to consult regarding LNG processing, the law is clear that both the Crown and any proponents must be aware of their responsibilities, including the extent of their duty to consult. The following section identifies the scope and nature of the duty to consult with Aboriginal communities potentially affected by the LNG industry.

The duty to consult arises from the Crown’s fiduciary relationship with Aboriginal peoples. It exists both at the federal and provincial levels and extends to agents of the Crown as well. Even in instances where the fiduciary relationship is not at play, the “honour of the Crown” requires that the state act respectfully and in the spirit of “negotiation” when Aboriginal rights are potentially at risk. The state’s obligation to consult was confirmed in the Haida decision, when the Supreme Court of Canada stated that no initial judicial determination is necessary and the Crown’s duty to consult is prompted only by the knowledge that Aboriginal or treaty rights are potentially at risk of being infringed. This conclusion was reinforced subsequently in the 2004 Taku decision.

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73. Ibid.
77. Ibid., at para. 38.
where the Court stated that "the duty to consult arises when a Crown actor has knowledge, real or constructive, of the potential existence of Aboriginal rights or title and contemplates conduct that might adversely affect them.... Responsiveness is a key requirement of both consultation and accommodation." 77

This exclusive legal responsibility to consult appears to be qualified with the understanding that the state has the power to regulate and keep corporations in check; as such there is no need to expand the legal obligation to consult beyond the Crown. This may not be the case in practical terms, however. In fact, the Courts have stated that proponents must participate in the consultation process.79 For example, this means the corporation(s) involved in an LNG project would be required to provide data regarding the extent of the project and the possible environmental impact, and to assess information provided by Aboriginal parties.80 Furthermore, the Crown "may delegate procedural aspects of consultation to industry proponents seeking a particular development; this is not infrequently done in environmental assessments." 81

It is also important for the consulting parties to know who holds the right to be consulted. As noted above, consultation is owed to any group whose Aboriginal or treaty rights are at risk of being affected (for example, land claims and hunting rights). Notably, however, Aboriginal and treaty rights cannot be assigned and, as such, companies incorporated by Aboriginal people or Indian bands do not possess the unilateral right to be consulted.82

Depending on the extent of the policy or activity and its impact on Aboriginal rights, appropriate consultation can span everything from giving notice, to including the Aboriginal party directly in any related decision-making.83 On a particular point of interest, in Taku the Court alluded that the duty to consult may even include the right of affected Aboriginal groups to a share of revenues from the project or activity in question.84 In determining what level of consultation is appropriate, the Crown must be aware of the perspective and practices of the Aboriginal

78. Hill v. British Columbia (Minister of Forests), 1998 CanLII 4609 at para. 87 (B.C. S.C.) [Hill].
80. Haida, supra note 76 at para. 53.
82. Delgamaaew, supra note 72 at para. 168.
83. Taku, supra note 78 at para. 12.
Furthermore, the *consulting* party must also consider seriously how the final outcome will impact the particular Aboriginal right(s) at issue. The courts recognize that, in practice, the *consulting* party’s duty is limited by other legal responsibilities, as well as the actions of the involved Aboriginal group. First, although the Crown’s responsibility to protect and promote Aboriginal and treaty rights is of the utmost importance, it is not absolute. Specifically, the British Columbia Court of Appeal stated that the Aboriginal right to consultation does not equal a veto power. Subsequent to that 1995 decision, courts have confirmed this conclusion with concrete examples of subject matter over which Aboriginal groups do not have a veto (e.g., gas exploration). Despite such conclusions, Chief Justice Lamer in the *Delgamuukw* case stated that “[s]ome cases may even require the full consent of an aboriginal nation, particularly when provinces enact hunting and fishing regulations in relation to aboriginal lands.”

Finally, it should be noted that the Crown’s fiduciary relationship with the Aboriginal communities require both parties to act in good faith. Furthermore, it is recognized that Aboriginal claimants must act reasonably in their efforts to gather pertinent information. As the British Columbia Supreme Court stated in the *Cheslatta* decision, “in the consultative process, First Nations demands for information must not be unreasonable. One can always insist on another study, or on more money for further research, even where such steps yield diminishing returns. Where further studies would defy generally accepted professional, scientific and commercial practices and standards, it is not reasonable to insist upon them.” As such, *consulting* parties may want to consider keeping good documentation of their efforts to communicate, as in the *Calliou* case.

Overall, the law is clear that *consulting* parties should consult “meaningfully” and in “good faith.” Despite the nature of the interest

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86. *Haida*, supra note 76 at para. 47.
88. *Calliou*, supra note 80 at para. 238.
92. See generally *Calliou*, supra note 80.
affected, however, both the consulting parties must fully disclose all relevant information to the involved Aboriginal parties. What is more, the Haida decision reminds proponents of their overall duty to the Aboriginal people, despite the absence of a legal responsibility to consult. As the court stated,

The fact that third parties are under no duty to consult or accommodate Aboriginal concerns does not mean that they can never be liable to Aboriginal peoples. If they act negligently in circumstances where they owe Aboriginal peoples a duty of care, or if they breach contracts with Aboriginal peoples or deal with them dishonestly, they may be held legally liable. But they cannot be held liable for failing to discharge the Crown’s duty to consult and accommodate.

While the duty to consult rests solely with the Crown, LNG project or policy proponents should take the initiative not only to be aware of any of their own disclosure responsibilities, but also to encourage any involved Crown parties to be diligent in their obligations to the Aboriginal communities. After all, failure on the part of the Crown to genuinely consider any and all Aboriginal viewpoints may result in the court determining the Crown failed to consult, and any decisions resulting from that failure would be overturned.

Conclusion
As natural gas continues to develop as the fuel of choice in North America, there will be a continuing need to ensure adequate LNG supply is made available at reasonable prices. A key driving force behind LNG trends continues to be the weather and, specifically, the level of winter heating demand that will ultimately determine natural gas demands and the demand for LNG storage. The growth in the number of proposed LNG receiving terminals intending to serve the U.S. northeast should decrease significantly as current projects succeed in moving through the relevant regulatory stages and into construction, leaving less demand for new projects. The cost to construct such terminals has been significantly driven up by the market and will act as a further deterrent to future proponents.

Proponents of LNG facilities in Canada must be well educated on the regulatory regime of their chosen jurisdiction. The simplification of the regulatory process by the various levels of government should lead to more effective and efficient procedures as government representatives

95. Hill, supra note 79 at para. 10.
96. Haida, supra note 78 at para. 56.
become more educated and experienced in the LNG industry. It is the market, however, that will ultimately determine whether an LNG receiving terminal will be completed.