National Energy Board

Office national de l’énergie

Reasons for Decision

BC LNG Export Co-operative LLC

GH-003-2011

February 2012

LNG Export

Canada

National Energy Board

Reasons for Decision

In the Matter of

BC LNG Export Co-operative LLC

Application dated 8 March 2011 for a long-term licence to export liquefied natural gas under section 117 of the *National Energy Board Act* (NEB Act).

GH-003-2011

February 2012

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Abbreviations and Definitions

Application	Application to the Board, pursuant to section 117 of the *National Energy Board Act* for a natural gas export licence
BC	British Columbia
BC LNG	BC LNG Export Co-operative LLC, a corporate entity formed to purchase LNG from the proposed LNG liquefaction terminal
Bcf	billion cubic feet
Bcf/d	billion cubic feet per day
Board or NEB	National Energy Board
CEA Act	*Canadian Environmental Assessment Act*
co-op	co-operative
DCEP	Douglas Channel Energy Partnership, the operator of the LNG Terminal
EIA	Export Impact Assessment
Gitxaala	Gitxaala Nation
GML	DCEP Gas Management Ltd., the purchaser of natural gas from producers and marketers and arranger of pipeline transportation to the LNG liquefaction terminal
GTSA	Gas Transportation Services Agreement
Haisla Nation	The Haisla First Nation, also known as the Kitamaat Indian Band
LNG	liquefied natural gas, or natural gas in liquefied form
LNG Partners	LNG Partners, LLC
LNG SPA	LNG sale and purchase agreement, between GML and BC LNG
m^3/d	cubic metres per day
MBP	Market-Based Procedure
MMBtu	million British thermal units
MMcf/d	million cubic feet per day
NEB Act	*National Energy Board Act*

Part VI Regulations	*National Energy Board Act Part VI (Oil and Gas) Regulations*
PNG	Pacific Northern Gas Ltd.
Tcf	trillion cubic feet
TERMPOL	Transport Canada’s TERMPOL Review Process
Terminal	the liquefaction terminal to be located on the west bank of the Douglas Channel near the Port of Kitimat, British Columbia
Westcoast	Westcoast Energy Inc, carrying on business as Spectra Energy Transmission

Recital

IN THE MATTER OF the *National Energy Board Act* and the Regulations made thereunder;

AND IN THE MATTER OF an application filed with the National Energy Board on 8 March 2011 by BC LNG Export Co-operative LLC for approval of a long-term natural gas export licence under Part VI of the Act, under file OF-EI-Gas-GL-B262-2011-01 01;

AND IN THE MATTER OF Hearing Order GH-003-2011 issued on 25 July 2011;

HEARD by way of written submissions:

BEFORE:

G.A. Habib	Presiding Member
R.R. George	Member
D. Hamilton	Member

Chapter 1

Introduction

1.1 Application Background and Summary

On 8 March 2011, BC LNG Export Co-operative LLC (BC LNG) filed an application with the National Energy Board (Board or NEB), pursuant to section 117 of the *National Energy Board Act* (NEB Act), for a 20-year licence to export liquefied natural gas (LNG) from a proposed liquefaction terminal (Terminal) to be located on the Douglas Channel near Kitimat, British Columbia (Application). BC LNG applied for a licence term of 20 years and a maximum annual volume of 1.8 million tonnes of LNG, which is approximately equivalent to 2.4 billion m^3 or 84.5 billion cubic feet (Bcf).[1] Table 1-1 summarizes the terms and conditions requested by BC LNG in its Application.

Table 1-1
Summary of Applied-for Licence

Term	20 years, commencing on the date of first export of quantities under the Licence
Maximum Term Quantity	36 million tonnes of LNG, equivalent to approximately 47.9 billion m^3 (1,691 Bcf) of natural gas
Maximum Annual Quantity	1.8 million tonnes of LNG, equivalent to approximately 2.4 billion m^3 (84.5 Bcf) of natural gas
Annual Tolerance	10 per cent in any 12-month period
Point of Export	At the point of departure from Canadian waters of ships loaded from the Terminal

Natural gas feedstock for the Terminal will be transported on the Westcoast Energy Inc. (Westcoast) system, carrying on business as Spectra Energy Transmission, to its interconnection with the Pacific Northern Gas Ltd. (PNG) mainline, for delivery to the Terminal. From the Terminal, tankers will follow established shipping lanes to transport the LNG to markets located primarily in Asia. Figure 1-1 illustrates the pipeline transportation routes to the Terminal. Figure 1-2 illustrates the location of the Terminal within Douglas Channel.

The Terminal will include two barge-based liquefaction trains to be constructed in stages. The first train is scheduled to commence in 2013-14 and the second train in 2016-18. Each train will have a daily volume requirement of 3.5 million m^3/d (125 MMcf/d) of natural gas. After completion of both trains, the Terminal will have an annual liquefaction capacity of 1.8 million tonnes of LNG. LNG from the Terminal will be pumped directly into an LNG tanker berthed

1 Throughout these Reasons, conversion factors of 1,330 apply for tonnes of LNG to cubic meters and 35.3147 for cubic meters to cubic feet.

adjacent to the barge. It will take about 30 days to fill a typical LNG tanker at the Terminal and approximately 25 days to make the roundtrip between the Terminal and markets in Asia.

A final investment decision for the first liquefaction train is anticipated in the first quarter of 2012. Construction and operation of the Terminal will be regulated by the BC Oil and Gas Commission.

1.2 Summary of Proceeding

On 25 July 2011, the Board issued Hearing Order GH-003-2011 and appended a draft List of Issues for the Board's consideration in this proceeding. The Board invited parties to comment on the draft List of Issues and requested that parties comment on the necessity of an oral public hearing. In response to the Hearing Order, 21 parties indicated an intention to participate in this proceeding. In addition, four parties filed letters supporting the Application.

Gitxaala Nation (Gitxaala) and two other parties indicated that an oral hearing could be required. Gitxaala indicated, however, that the necessity of an oral hearing may change pending the outcome of discussions taking place between Gitxaala and BC LNG. Gitxaala asked the Board to defer its decision on whether an oral hearing was required until 15 September 2011. BC LNG supported that request. The Board granted two subsequent extensions, first until 23 September 2011 and again until 30 September 2011.

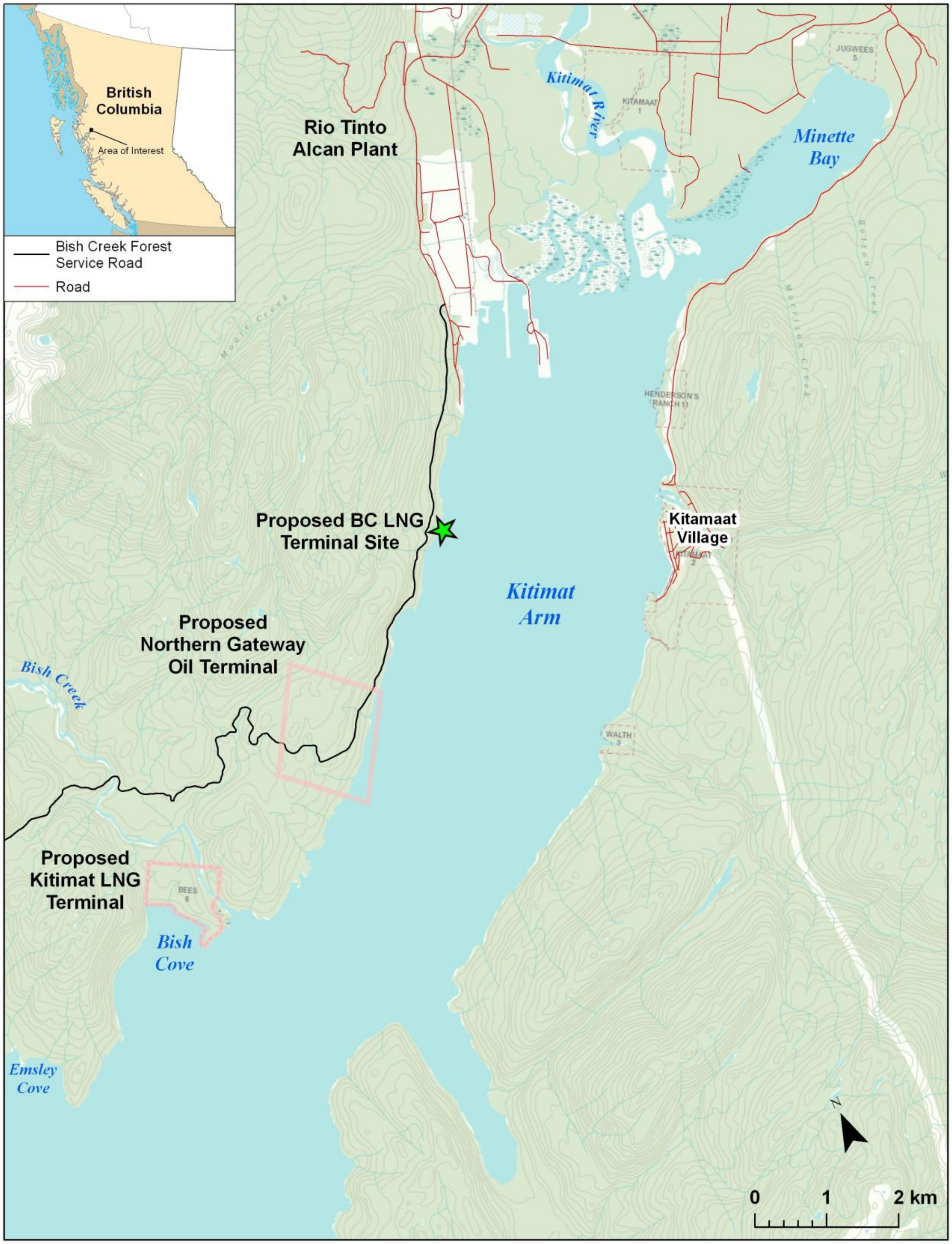
On 29 September 2011, Gitxaala withdrew its intervention in this proceeding.

On 17 October 2011, the Board decided that an oral hearing was not required, and issued a letter to all parties with an updated procedural schedule setting forth the process for a written hearing. The updated procedural schedule set the deadline for letters of comment as 31 October 2011, and required parties to submit written final argument by 30 November 2011 and reply argument by 7 December 2011. The Board decided not to amend the List of Issues.

On 31 October 2011, the Kitimat Rod and Gun Association submitted a letter of comment. On 30 November 2011, BC LNG and three intervenors filed written argument. All three intervenors supported BC LNG's Application.

Figure 1-1
Pipeline Transportation and Terminal Location

Figure 1-2
Proposed Terminal Location in Douglas Channel



Chapter 2

Structure and Features of the Co-operative

2.1 Corporate Structure

BC LNG is a corporate entity formed to purchase LNG produced at the Terminal.[2] The Terminal will be owned by Douglas Channel LNG Assets Partnership and operated by Douglas Channel Energy Partnership (DCEP).[3] DCEP will provide liquefaction services to DCEP Gas Management Ltd. (GML).[4] The Haisla Nation, through HN DC Limited Partnership, has an interest in BC LNG, DCEP and GML.

Neither BC LNG nor GML have natural gas reserves. GML will purchase natural gas from producers and marketers who are members of a co-operative (co-op), in accordance with the nomination procedures and the rules set out in the co-op membership agreement. The co-op will include Canadian natural gas producers and marketers, as well as purchasers of LNG. GML will also be responsible for arranging pipeline transportation of natural gas feedstock to the Terminal.

BC LNG will purchase the LNG from GML at the outlet of the Terminal or at the inlet of an LNG tanker, pursuant to the terms of an LNG sale and purchase agreement (LNG SPA). The LNG SPA is for the purchase of the full capacity of the Terminal for 20 years from the date operations commence. BC LNG will then sell the LNG at the designated export point to an LNG purchaser pursuant to the export licence sought in this Application.

2.2 Nomination Procedures

The co-op is a central feature of BC LNG's proposal. The co-op permits Canadian producers and marketers, as well as LNG purchasers, to execute transactions through a bidding process. Members of the co-op are eligible to participate in the nomination procedures, which are a periodic call for bids from co-op members to supply natural gas to GML, or to purchase LNG from BC LNG.

Members will be encouraged to bid using approved price indices. An independent proctor will open all bids. A selection committee consisting of BC LNG's directors and elected co-op members will select the bids from natural gas producer(s) and LNG purchaser(s) that yield the greatest margin to the co-op. Net revenues from the resale of the LNG, after deducting relevant costs and expenses, will be allocated to all co-op members according to a pre-determined spread allocation as defined in the membership agreement.

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2 BC LNG is owned by LNG Partners, LLC (LNG Partners) and HN DC Limited Partnership, each with a 50 per cent interest.

3 DCEP is owned by Douglas Channel LNG Assets Partnership, HN DC Limited Partnership and LNG Partners (indirectly).

4 GML is owned by LNG Partners (indirectly) and HN DC Limited Partnership, each with a 50 per cent interest.

A co-op member may choose not to participate in the nomination procedures; however, once a commitment is made by a co-op member, it is binding. In the event of insufficient bids by co-op members to supply gas or purchase LNG, or if there is an unforeseen interruption in gas delivery to the Terminal, back-up contracts will be used.

BC LNG has received letters of intent from five parties to provide either the back-up supply of natural gas or the back-up purchase of LNG. Summary terms for the back-up supply of natural gas indicate that the contract terms will be for 20 years, for up to 250 MMcf/d and priced in accordance with a pre-determined price index. Summary terms of the back-up LNG purchase arrangements indicate that the contract terms will be for 20 years, for up to 1.8 million tonnes of LNG per annum and with a minimum firm price term for seven years, to be determined based upon a mutually agreed world market price.

To obtain expressions of interest from parties to participate in the co-op, BC LNG ran notices and advertisements in various news and trade publications. Founding membership in the co-op was offered to natural gas producers, marketers, and LNG purchasers that provided expressions of interest. Additional memberships will be available to parties on request, provided those parties pay a membership fee. Membership in the co-op is confirmed by the signing of an agreement that covers the rules and governance of the co-op, and particularly the nomination procedures.

Thirteen parties have executed membership agreements. These parties are founding members of the co-op. The initial call for nominations is anticipated to occur within 60 to 90 days following a final investment decision.

Chapter 3

Assessment of the Application

Part VI of the NEB Act gives the Board authority to issue gas export licences. When assessing an export licence application, the Board examines the proposed market, an applicant's gas supply and transportation arrangements. Applicants are required to file this information with the Board pursuant to the *National Energy Board Act Part VI (Oil and Gas) Regulations* (Part VI Regulations). The Board assesses the merits of the application through a surplus determination procedure, known as the Market-Based Procedure (MBP). The MBP is designed to establish whether the proposed export of natural gas is both surplus to reasonably foreseeable Canadian requirements, having regard to the trends in the discovery of gas in Canada, and is in the public interest.

The MBP consists of two components: a public hearing and ongoing monitoring of Canadian energy markets. The public hearing component of the MBP is made up of three parts: (i) the complaints procedure; (ii) the export impact assessment (EIA); and (iii) other public interest considerations. A detailed summary of the MBP and the applicability of the MBP to the export of LNG are available in the Board's GH-1-2011 Reasons for Decision.

This chapter summarizes the evidence and argument submitted during the course of this proceeding by BC LNG and other parties.

3.1 Markets

While no LNG purchasers have entered into long-term sale and purchase agreements with BC LNG, BC LNG indicated that LNG purchasers have executed membership agreements in the co-op. In addition, certain market participants have signed letters of intent to negotiate and execute binding back-up LNG purchase agreements.

BC LNG anticipates that all LNG produced at the Terminal will be shipped to markets in Asia. However, purchasers of LNG will be able to deliver cargoes anywhere in the world because contracts with BC LNG will not have destination restrictions. BC LNG stated that such provisions are particularly attractive to trading companies participating in the co-op.

Wood Mackenzie was retained by BC LNG to provide an assessment of Canadian and North American natural gas markets and global LNG markets relevant to BC LNG's Application. Wood Mackenzie estimated a net global LNG shortage in 2016-17 and indicated that BC LNG is well positioned to compete for a portion of this growing demand. Furthermore, BC LNG submitted that natural gas supply from Canada is highly attractive to Pacific Rim buyers due to Canada's political and regulatory stability.

The Wood Mackenzie assessment concluded that demand for LNG in the Pacific Rim is forecast to increase by 3.7 per cent per year from 2010 to 2033. Demand is expected to come from key markets in China and India, as well as Japan, South Korea and Taiwan who have no indigenous natural gas supply and are dependent on imported LNG. Wood Mackenzie indicated that much of the world uses oil-linked prices for natural gas because oil is a primary alternate energy source. LNG prices based on forecast oil prices would range between US$11-18/MMBtu through to 2033.

3.2 Supply

BC LNG noted that the LNG SPA provides it with a contractual arrangement with GML to purchase LNG for the export market. BC LNG stated that six producers have signed co-op membership agreements that permit eligibility to participate in the nomination procedures to supply natural gas to GML. If insufficient gas is nominated during the nomination procedures, the back-up supplier(s) would then provide the required volumes from the western Canada market for the term required.

BC LNG submitted evidence that the proved and probable reserves of the six producers that have signed membership agreements are 114 billion m^3 (4,039 Bcf) and exceed the applied-for licence volume of 47.9 billion m^3 (1,691 Bcf). The contingent and prospective resources from just three of the six producers are indicated as 681 billion m^3 (24 Tcf).

Recoverable shale gas resources from the Montney and Horn River plays were estimated at 5.7 trillion m^3 (200 Tcf). Another estimate submitted by BC LNG suggests the recoverable resource in the Montney play alone could be 7.1 to 14.2 trillion m^3 (250 to 500 Tcf). Either estimate indicates substantial recoverable resource potential in the Montney and Horn River plays.

BC LNG submitted that projected average daily production from the six producers exceeds the daily volume of the proposed export of 7.1 million m^3/d (250 MMcf/d) over the 20-year period. Current production from the six producers who have signed membership agreements is 25.3 million m^3/d (892 MMcf/d), and BC LNG projects production from these producers would peak at 51.9 million m^3/d (1,833 MMcf/d) in 2028.

3.3 Transportation

BC LNG stated that natural gas will be transported on Westcoast's system to its interconnect with the PNG mainline near Prince George for delivery to the Terminal. BC LNG expects that approximately 2.8 million m^3/d (100 MMcf/d) of capacity will be available on PNG's mainline to transport gas from Westcoast's system to Kitimat. BC LNG stated that LNG Partners holds a Gas Transportation Services Agreement (GTSA) option to acquire firm and interruptible service from PNG. The GTSA is convertible to 2.3 million m^3/d (80 MMcf/d) of firm natural gas transportation and allows additional volumes to be transported on an interruptible basis. BC LNG advised that PNG expects to transport an average of 368 thousand m^3/d (13 MMcf/d) on an interruptible basis. Upon a positive final investment decision, LNG Partners will assign its option for capacity on PNG's mainline to GML. The term for the firm and interruptible service on PNG would be secured for a period of 20 years.

DCEP and its affiliates requested 4.2 million m^3/d (150 MMcf/d) of capacity on the proposed Pacific Trail Pipeline, which is planned to transport gas from Summit Lake to the proposed KM

LNG terminal in Kitimat. DCEP and its affiliates also made formal requests to three other prospective pipeline projects for transportation to Kitimat.

BC LNG emphasized that the utilization of the export volume is not contingent on the successful negotiations with the proponents of the Pacific Trail Pipeline. BC LNG advised that the GTSA ensures that transportation on PNG's system is available to supply the first train of the Terminal.

After liquefaction at the Terminal, the LNG will be transported by LNG tanker to markets in Asia. Tankers would leave Douglas Channel and enter international waters following established shipping lanes.

3.4 Complaints Procedure

BC LNG indicated that information about the proposed export was made available to Canadian gas market participants through the filing of BC LNG's Application with the Board on 8 March 2011, through distribution of the GH-003-2011 Hearing Order to a broad range of stakeholders, through advertising its Application in national and regional publications, and during the course of this proceeding.

BC LNG submitted that it had spoken with one Canadian market participant who had expressed an interest in acquiring LNG from the Terminal. BC LNG advised the market participant that it was eligible to join the co-op by executing a membership agreement, allowing the market participant the ability to acquire LNG on similar terms and conditions, including price, as other members of the co-op. The interested party did not join the co-op and did not express further interest in making arrangements to acquire LNG.

BC LNG submitted that it had fulfilled the intent and the objectives of the Complaints Procedure. BC LNG concluded that the general lack of interest from Canadian purchasers is presumed to reflect better supply alternatives available to Canadian market participants.

3.5 Export Impact Assessment

BC LNG submitted the Wood Mackenzie assessment to meet the Board's requirement for an EIA. The assessment forecasts that western Canadian natural gas production will grow from 408 million m^3/d (14.4 Bcf/d) in 2010 to 470 million m^3/d (16.6 Bcf/d) in 2033 at prices below US$7.50/MMBtu. Wood Mackenzie indicated that production growth is largely attributed to having up to 5.7 trillion m^3 (200 Tcf) of recoverable resources in the Horn River and Montney plays. Canadian shale gas output is expected to benefit from favourable economics due to fiscal terms, advances in well design and decreasing per unit production costs. Furthermore, BC LNG submitted that rising production is anticipated to reduce pipeline per unit transmission costs, thus making Canadian gas more competitive in North America.

The Wood Mackenzie assessment noted that growth in demand for gas in North America will primarily come from the power generation and industrial sectors. Demand is forecast to increase from 2.1 billion m^3 (75 Bcf/d) in 2010 to 3.0 billion m^3 (105 Bcf/d) in 2033. Natural gas demand in Canada is expected to rise by 113 million m^3 (4.0 Bcf/d) during this period. Rising Canadian and US natural gas production would accommodate the increase in Canadian demand. Flows of natural gas out of western Canada would increase through 2020 before gradually returning to near current levels by 2033.

The Wood Mackenzie assessment concludes that the small scale nature of BC LNG's export proposal would not materially impact Western Canada Sedimentary Basin natural gas market dynamics.

The Kitimat Rod and Gun Association expressed concern that expanding natural gas exports to foreign markets would cause the price of natural gas for Canadian consumers to increase. The Kitimat Rod and Gun Association requested the Board identify a threshold for exports and indicate how Canada's future energy needs would not be negatively impacted by the natural gas exports of today.

3.6 Other Public Interest Considerations

BC LNG stated that current market conditions require Canadian producers to find new markets in order to continue developing their reserves. BC LNG argued that the proposed export would help avoid natural gas being shut-in when North American prices are insufficient to justify production.

BC LNG noted that participants in Canada's natural gas industry would obtain added value from LNG exports. It referred to the Wood Mackenzie assessment, which forecasts North American natural gas prices below US$7.50/MMBtu and landed prices of LNG in Asian markets between US$11-18/MMBtu through to 2033.

BC LNG claimed that the co-op has the ability to provide an opportunity to a broad spectrum of Canadian producers and marketers to reach new markets. Membership in the co-op is not closed, and additional parties may join upon request and payment of a membership fee. BC LNG characterized the co-op as an open access structure, serving a larger public interest than facilities limited to specific producers.

BC LNG advised that contract prices will recover transportation charges, liquefaction costs and all other costs incurred in Canada in facilitating the proposed export. BC LNG submitted evidence that indicated that the contract sale price of LNG sold by GML to BC LNG shall be equal to GML's costs of providing and loading all LNG. This price shall include purchase cost of the feedstock gas, transportation costs, liquefaction costs and any applicable shipping licence fees. Tenaska Marketing and Talisman Energy noted that the significant price differential between North American and global markets is sufficient to recover all costs to be incurred in Canada.

BC LNG submitted that the LNG sales contracts between itself and LNG purchasers in Asia would be flexible over the requested term of the licence, and that the sales contracts will respond to changing market conditions. Due to the difficulty of predicting the relationship between North American natural gas prices and world oil prices over the long-term, BC LNG expects to enter into contracts that cover a 20-year term, but also provide for periodic price redetermination.

BC LNG submitted that GML's contracts for the purchase of natural gas from Canadian marketers and producers will be negotiated at arm's-length and on terms that reflect prevailing market conditions. The nomination procedures are designed to encourage co-op members to make their bids as attractive as possible while permitting them to protect their long-term interests.

BC LNG added that the proposed export would promote utilization of unused capacity on PNG's mainline by GML. This would benefit existing PNG ratepayers.

3.7 Environmental and Socio-Economic Considerations

The Terminal will be subject to a screening level environmental assessment under the *Canadian Environmental Assessment Act* (CEA Act), to be conducted by Fisheries and Oceans Canada. The proposed scope of the assessment includes the construction and operation of the Terminal, and the activity of tanker shipping between the Terminal and Hecate Strait. Compensation for fish habitat loss will be proposed to Fisheries and Oceans Canada as part of this project. BC LNG submitted that its proposal is of a modest scale, and that the facilities and activities associated with it are expected to have a limited impact.

The proposal to transport LNG from the Terminal will be subject to Transport Canada's TERMPOL Review Process (TERMPOL) and BC LNG stated that it intends to comply fully with the requirements of TERMPOL. The TERMPOL review committee will determine the boundaries of the review; however, BC LNG noted it expects that the boundaries will include the confined channels that marine vessels navigate while transiting to and from the Port of Kitimat, including Douglas Channel through to the waters of Hecate Strait. While the objective of TERMPOL is to assess operational safety aspects, a number of environmental and socio-economic effects of marine shipping associated with BC LNG's proposal have also been identified for review under TERMPOL.[5]

Transport Canada regulates shipping within Canadian waters through a variety of instruments, including the *Canada Shipping Act*, the *Marine Transportation Security Act*, and *Pilotage Act*. This legislation contains mandatory compliance requirements relating to navigation, incidents and accidents, and pollution prevention and response.

The Haisla Nation (Haisla), through its ownership stake in HN DC Limited Partnership, will directly participate in and benefit from activities occurring within the territory over which it claims Aboriginal title. BC LNG stated that the 50 per cent interest of the Haisla in BC LNG and GML offers the Haisla a unique opportunity to participate directly in the economic benefits of BC LNG's export proposal. BC LNG further noted that the Haisla is a partner in DCEP, which will provide liquefaction services from the Terminal.

The Haisla supported the Application, arguing that it would have significant beneficial impacts for the Haisla and other people. The Haisla noted that the new revenue source would allow the

5 TERMPOL studies include a fisheries resource survey, including fish and fish habitat and sensitive marine areas, and locations and seasons of regional fishing operations; amarine traffic volume survey including sensitive biological and human environments along or adjacent to proposed routes and identification of sensitive habitats and ecosystems; and, risk and effects of an uncontrolled release of bulk LNG cargo upon the marine environment.

Haisla government to support health, education, community development and the many other needs of the First Nation and its members. Further, the Haisla indicated that business and employment opportunities associated with the development of the Terminal and associated facilities would be available for Haisla members and businesses. Finally, the Haisla indicated that a number of other Aboriginal persons, businesses and nations would see economic spinoff benefits from the development and operation of the Terminal and associated facilities. For these reasons the Haisla submitted that the overall socio-economic effects of the Application, including such effects on Aboriginal interests, are positive.

The Kitimat Rod and Gun Association requested that BC LNG and its partners establish a fish and wildlife legacy program for the area. In response to the request, BC LNG stated the Terminal is undergoing an environmental assessment under the CEA Act, which specifically considers potential effects the Terminal and associated activities may have on fish and wildlife habitats. BC LNG committed to working with the Kitimat Rod and Gun Association to explore funding opportunities to address local fish and wildlife habitat impacts arising from the Terminal. BC LNG also committed to working with local stakeholders, including the Kitimat Rod and Gun Association, to ensure that traditional fishing and hunting practices and recreational pursuits can co-exist with the Terminal and throughout the life of the project.

Chapter 4

Applied for Exemptions and Licence Terms

4.1 Applied for Exemptions

BC LNG sought relief from the following three requirements of section 12 of the Part VI Regulations:

- details of gas export sales contracts (paragraph 12(c)(i));
- information related to the facilities that would be required to import natural gas into the importing country (paragraph 12(e)(iii); and
- information related to the status of approvals or authorizations pertaining to the importation of gas into the country of destination (paragraph 12(h)(ii)).

BC LNG indicated that it could not file details of its export sales contracts because it has not concluded those contracts. Uncertainties associated with the construction of the Terminal made BC LNG unable to commit to a sale commencement date. Potential buyers have been unwilling to enter into firm gas purchase contracts without a sale commencement date. BC LNG indicated that the proposed nomination procedures and the lengthy time until first export make it reasonable and appropriate that gas exports sales arrangements have not been concluded. BC LNG committed to providing gas export sales contracts to the Board, in confidence, once completed. BC LNG proposed a licence condition to this effect.

Regarding the relief sought from paragraphs 12(e)(iii) and 12(h)(ii) that of the Part VI Regulations, BC LNG said that it does not anticipate limiting the markets purchasers can sell the LNG exported under its licence to. As a result, BC LNG does not anticipate being able to provide information in connection with the authorizations or facilities that are going to be required in importing countries.

4.2 Licence Terms and Conditions

BC LNG requested a 10 per cent annual tolerance to the amount of gas that may be exported under the licence in any consecutive 12-month period. BC LNG also requested that the term of the licence end 48 months after it is issued, unless exports commence before that date.

BC LNG requested that the Board set the export point at the outlet of the Terminal, or at the point of departure from Canadian waters of ships loaded from the Terminal. BC LNG noted that its commercial structure assumes that a transfer of title to LNG will occur at the point of departure from Canadian waters of ships loaded from the Terminal.

Chapter 5

Findings of the Board

Markets

The Board recognizes that the forecast annual LNG demand growth in Asia provides a new opportunity for Canadian producers to diversify their natural gas export markets. The Board notes BC LNG's submission that demand for LNG in Asia is forecast to increase, primarily driven by demand from the industrial and power sectors. Due to the size of Canada's natural gas resource, proximity to Asian markets and stable political and regulatory environment, the Board accepts BC LNG's submission that Canada is viewed as a desirable source of supply for Asian LNG purchasers. Since prices of LNG in Asia are indexed to oil prices, the Board notes BC LNG's forecast of the natural gas price spread between North America and Asia could provide Canadian producers with attractive netbacks.

No party disputed BC LNG's export market evidence. In contrast, several interested parties indicated strong support for the Application and the LNG export market potential.

Based on the foregoing, and having regard to the size and potential of the Asian market, the Board concludes that the proposed export volume is likely to flow.

Supply

The Board notes that the LNG SPA contractually binds GML to provide the applied-for export volume over the 20-year term. The Board observes that the nomination procedures provide flexibility for multiple producers to offer gas supplies to GML. In addition, GML has the ability to call upon the back-up supplier(s) to access additional volumes, should they be required.

The Board is satisfied that the size of the resource controlled by the producers in the co-op and its expected daily and annual productive capacity exceeds the requirements of the applied-for export licence over the 20-year licence term.

The Board concludes that there is adequate supply to support the export volume over the term of the applied-for licence.

Transportation

The Board notes that BC LNG's option to acquire capacity on PNG's system is sufficient to supply the first train of the Terminal. Additional pipeline transportation to the Terminal is currently being negotiated with the proponents of the Pacific Trail Pipeline, as well as with other parties. The Board is of the view that BC LNG has sufficient incentive to ensure that additional pipeline capacity to the Terminal will be acquired in order to fully utilize the export volumes requested in this Application.

Complaints Procedure

The Board finds that BC LNG provided Canadian natural gas market participants with a reasonable level of information about its proposed export. BC LNG filed its Application on 8 March 2011. The GH-003-2011 Hearing Order was published in newspapers in Canada and provided interested parties the opportunity to participate in this proceeding. Since the filing of the Application, only one Canadian market participant expressed interest in purchasing LNG from BC LNG. The participant was offered the opportunity to purchase LNG via participation in the co-op's nomination procedures, but did not execute a membership agreement.

No parties came before the Board to complain that they did not have an opportunity to purchase natural gas on terms and conditions, including price, similar to those of the export proposal. For this reason, the Board concludes that, in the context of this Application, the intent and objectives of the Complaints Procedure have been satisfied.

Export Impact Assessment

The Board recognizes the comprehensive nature of the EIA prepared by Wood Mackenzie, where Canadian and US natural gas supply and demand, supply costs, prices and market dynamics were analyzed. The study also examined global LNG markets in terms of supply, demand and prices.

The Board understands that significant changes are occurring in the North American natural gas market as changing supply sources and emerging demands alter inter-regional natural gas flows. In particular, growing US supplies are increasingly entering markets in central Canada as well as US markets traditionally accessed by Canadian gas exports. The Board notes that this is indicative of ongoing market functionality and expects that US natural gas will continue to supply a portion of Canadian demand. Since deregulation in 1985, North American gas markets have functioned efficiently and there is no evidence to suggest that they will not continue to do so in the future.

The Board notes the demonstrated ability of the North American natural gas market to accommodate significant changes in supply, demand and prices. Since the applied-for export volume is only a small fraction of this overall market, the Board agrees with BC LNG that the export of this volume is unlikely to cause Canadians difficulty in meeting their energy requirements at fair market prices.

The dynamic and evolving nature of the North American natural gas market suggests that supplies are brought forward as required with prices adjusting to provide appropriate incentives for consumers and producers. Within the context of these dynamic market adjustment mechanisms, the Board believes that rigid threshold limits, as suggested by the Kitimat Rod and Gun Association, would probably impede the proper functioning of markets.

Based on the foregoing, the Board is satisfied that the quantity of gas to be exported does not exceed the surplus remaining after due allowance has been made for the reasonably foreseeable requirements for use in Canada having regard to the trends in the discovery of gas in Canada. Moreover, the Board will continue to monitor markets to satisfy itself that markets are functioning properly and Canadian requirements are being met at fair market prices.

Other Public Interest Considerations

The Board notes that the co-op and the nomination procedures are an innovative approach to allow producers and marketers to participat in the LNG export market. Information soliciting membership in the co-op was widely circulated, giving natural gas suppliers and LNG purchasers ample opportunity to join the co-op. The Board recognizes that the natural gas suppliers and LNG purchasers who sign a co-op membership agreement are aware of the rules and governance of the co-op, including the nomination procedures. When participating in the nomination procedures, co-op members will be able to nominate for a term of their choosing and will nominate bids based on their own assessment of current market conditions. Co-op members are not obligated to participate in the nomination procedures and new members may join upon request and payment of a fee. The Board finds this process to be market-based, arm's length and consistent with the current North American natural gas market.

The Board recognizes that the co-operative structure, as proposed by BC LNG, may allow smaller natural gas producers and marketers to participate in a market that otherwise would have been cost prohibitive due to the high, front-loaded costs associated with developing a liquefaction project. The Board notes that 13 parties have executed membership agreements, giving some level of assurance that nomination bids will be made and natural gas will be exported. The Board recognizes that in the event the co-op does not receive sufficient bids in the nomination procedures, long-term back-up supply and purchase arrangements will be in place.

The Board acknowledges that the LNG SPA contract sale price between GML and BC LNG is inclusive of all costs incurred in providing and loading the LNG, including the price of feedstock gas, transportation and liquefaction. The Board is therefore satisfied that all the costs incurred in Canada will be recovered.

The Board notes that the 20-year sales contract with Asian buyers is anticipated to match the term of the LNG SPA, gas transportation arrangements, term of the back-up supply contracts and the term of the requested licence. Accordingly, the Board finds the 20-year term of the requested export licence appropriate.

Environmental and Socio-Economic Considerations

The Board recognizes that an application for a natural gas export licence does not trigger an environmental assessment under the CEA Act. However, this does not preclude the Board from considering potential environmental effects and directly related social effects of gas exports when assessing the application. The Board is of the view that potential environmental effects and directly related social effects will be considered in the environmental assessment of the Terminal or through TERMPOL. The record indicates that other agencies, federal and provincial, will continue to assess any environmental and social effects associated with these aspects of BC LNG's export proposal. The Board is of the view that duplicating the work of these other agencies is not warranted.

The Board acknowledges the economic benefits associated with BC LNG's project. These benefits include a new revenue source for the Haisla and employment opportunities from the development and operation of the Terminal.

Applied for Exemptions, Licence Terms and Conditions

The Board accepts BC LNG's submission that the LNG purchase and sales contracts would not be finalized without a final investment decision, which in turn is conditional on, amongst other things, the granting of the export licence. BC LNG submitted that the filing of LNG export sales contracts, as required by paragraph 12(c)(i) of the Part VI Regulations, cannot be met at this time; however, the Board notes BC LNG's commitment to file these contracts in confidence, prior to the exportation of LNG. The Board also notes BC LNG's commitment to file all LNG purchase contracts pursuant to which BC LNG acquires LNG from GML or any other party.

The Board also realizes that in the context of this Application, and the current realities of the LNG market, certain other filing requirements may not be applicable. Therefore, the Board will not require BC LNG to file:

- information related to the facilities that would be required to import LNG into the importing country as required by paragraph 12(e)(iii) of the Part VI Regulations; or
- information related to the status of approvals or authorizations pertaining to the importation of LNG into the country of destination as required by paragraph 12(h)(ii) of the Part VI Regulations.

The Board accepts BC LNG's request for a 10 per cent tolerance in any consecutive 12-month period and has set a sunset date for the licence of 31 March 2016.

The Board considered BC LNG's request to revise licence condition #5 to read "natural gas will be exported at a point on the outlet side of the Terminal or at a point of departure from Canadian waters of ships loaded from the DCEP facility."

The Board is of the view that BC LNG's proposed export point, at the departure from Canadian waters of ships loaded from the Terminal, is not a precise location. The Board understands that title to the LNG will transfer at a point of departure from Canadian waters. In the Board's view, the export point for a gas export licence is for administrative purposes and it can differ from the export point set out in an applicant's commercial documents. Therefore, the Board designates the export point to be at the outlet of the Terminal. In the Board's view, this location is precise and is consistent with the Board's past practice.

Chapter 6

Disposition

The foregoing chapters constitute our Reasons for Decision in respect of the Application heard by the Board in the GH-003-2011 proceeding.

For these reasons, the Board:

DECIDES to issue a licence to export liquefied natural gas with the terms and conditions described in Appendix II of these Reasons to BC LNG Export Co-operative LLC, subject to the approval of the Governor in Council.

G Habib

G.A. Habib
Presiding Member

R.R. George
Member

D. Hamilton
Member

February 2012
Calgary, Alberta

Appendix I

List of Issues for GH-003-2011 Proceeding

1. Application of the Market-Based Procedure (MBP) to assess the merits of BC LNG's application to export liquefied natural gas (LNG).

2. Overseas gas markets and the adequacy of gas export sales arrangements.

3. Status of the required regulatory authorizations for the BC LNG facility.

4. Consideration of the potential environmental effects of the proposed exportation and any social effects that would be directly related to those environmental effects, as qualified in paragraph 11 of the Hearing Order.

5. Adequacy of natural gas supply to support the volumes and term of the applied-for licence.

6. The terms and conditions to be included in any licence that the Board may issue.

7. The adequacy of pipeline transportation arrangements pertaining to the volumes to be exported.

Appendix II

Terms and Conditions of the Licence to be Issued for the Export of Liquefied Natural Gas

General

1. BC LNG Export Co-operative LLC (BC LNG) shall comply with all of the terms and conditions contained in this Licence unless the Board otherwise directs.

Licence Term, Conditions and Point of Export

2. Subject to condition 3, the term of this Licence shall commence on the date of first export from the Douglas Channel Energy Partnership operated Liquefied Natural Gas (LNG) facility to be located at or near Kitimat, British Columbia (the LNG Terminal), and shall continue for a period of 20 years thereafter.

3. The term of this Licence shall end on 31 March 2016, unless exports from the LNG Terminal commence on or before that date.

4. The quantity of LNG that can be exported under the authority of this Licence is:

   (a) Annual quantity not exceeding 1,800,000 tonnes, which is the approximate natural gas equivalent of 2.4 billion m^3 or 84.5 Bcf.

   (b) Term quantity not exceeding 36,000,000 tonnes, which is the approximate natural gas equivalent of 47.9 billion m^3 or 1,691 Bcf.

   (c) As a tolerance, the amount of LNG that may be exported in any 12-month period may exceed the annual quantity by up to 10 per cent.

5. Natural gas will be exported at the outlet of the LNG Terminal.