NATIONAL ENERGY BOARD

IN THE MATTER OF the *National Energy Board Act*, RSC 1985, c N-7, as may be amended from time to time, and the Regulations made thereunder;

AND IN THE MATTER OF an application by the Haisla Nation for a license pursuant to Section 117 of the *National Energy Board Act* authorizing the export of natural gas.

To: Secretary, National Energy Board 444 - 7th Avenue, S.W. Calgary, Alberta Canada T2P 0X8

APPLICATION OF CEDAR 3 LNG EXPORT LTD. FOR A LICENSE TO EXPORT LIQUEFIED NATURAL GAS

August 28, 2014

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I. HISTORY

Applicant

- 1. The applicant of this application is Cedar 3 LNG Export Ltd. (the "Applicant"), a corporation incorporated and organized under the laws of the Province of British Columbia. The Applicant is a subsidiary of Cedar LNG Export Development Ltd. (the "Parent Company"), a liquefied natural gas ("LNG") export development company. Owned by the Haisla Nation ("Haisla"), the Parent Company forms part of the Haisla LNG development initiative and oversees and manages LNG export business interests, activities and logistics around implementation.
- 2. The Applicant hereby applies to the National Energy Board (the "**NEB**") pursuant to Section 117 of the *National Energy Board Act*¹ (the "**NEB Act**") for a license to export LNG with the terms and conditions outlined below (the "**License**").
- 3. This application is being submitted concurrently with two (2) other related applications, each for a NEB license to export LNG (the "Haisla Applications").² The quantity of LNG capacity under each of the Haisla Applications may vary between applications. The reason for the separate applications is that each application will represent a separate project with independent commercial dealings with investors, gas producers, LNG purchasers, pipeline transmission companies, technology providers and shippers. The Applicant and the Parent Company are working with a number of entities to develop business structures and partnerships to provide transaction flexibility, adequate financing, modern technology, local knowledge, and marketing expertise specific to Asian targets. The separate projects will accommodate expected production and demand and will also allow for a number of midlevel organizations to be involved with the various projects as well as traditional major gas producers and LNG purchasers.

Background

4. The Haisla territory is located on approximately four (4) million acres on British Columbia's West Coast. The Haisla people have occupied their lands for about 9,000 years. The Haisla Nation is the result of the amalgamation of the Kitamaat of the Douglas and Devastation Channels and the Kitlope of the Upper Princess Royal Channel and Gardner Canal. Approximately half of the Haisla people are centered on the Kitamaat Village, located approximately ten (10) kilometers from Kitimat, British Columbia. Much of the balance of the population lives elsewhere in the region or in greater Vancouver.

¹ National Energy Board Act, RSC 1985, c N-7.

² The applicants under the other two applications are: Cedar 1 LNG Export Ltd. and Cedar 2 LNG Export Ltd.

- 5. Haisla Nation Council and its Economic Development Committee are committed to furthering economic development for the Haisla. The Haisla's business philosophy is to advance commercially successful initiatives and to promote environmentally responsible and sustainable development, while minimizing impacts on land and water resources, partnering with First Nations and non-First Nations persons, working with joint venture business partners, and promoting and facilitating long-term development opportunities. The Haisla Applications will allow the Haisla to be directly involved as participants in Canada's LNG industry, rather than having only royalty or indirect interests. The Kitimat LNG and LNG Canada projects, and the associated Pacific Trails Pipeline and Coastal Gas Link Pipeline, have increased economic opportunities in the region and the Haisla are very supportive of these projects locating within the traditional territory of the Haisla's economic and social objectives.
- 6. The Applicant proposes to develop the Haisla LNG projects (the "Haisla Projects") using a business model based on controlling two (2) components of the value chain: land and pipeline capacity. In this respect, multiple export arrangements are under consideration and the Applicant has been working to secure capacity subject definitive documentation.
- 7. In support of their economic development interests, the Haisla have taken a number of important steps in the LNG industry. These include entering into a regulatory agreement under the *First Nations Commercial and Industrial Development Act*³ and related lease arrangements for IR6 with Kitimat LNG (a Chevron-led LNG project). The Haisla have also entered into various agreements with the province of British Columbia for lease and purchase by the Haisla of other lands, including the site on which the project discussed in this application will be situated.⁴ Other projects situated nearby, such as the LNG Canada project led by Shell Canada Energy, are located on Haisla traditional territory. The Haisla's reserve land, leased land and fee simple land are identified on the attached <u>Schedule "A"</u>. All of these lands are located around the Northern Douglas Channel and it is expected that these lands will all be utilized to support the projects will be located within the Northern Douglas Channel, north of Bish Cove (the "Haisla Projects Region").

³ Aboriginal Affairs and Northern Development Canada, "Liquefied Natural Gas Project on Haisla Nation Reserve Moves Forward with the Signing of the Interim Regulatory Agreement", Government of Canada News Release dated March 26, 2012, Ref. #2-3639, available online: Aboriginal Affairs and Northern Development Canada http://www.aadnc-aandc.gc.ca/eng/1331930582492/1331930680633>.

⁴ Government of British Columbia, "Agreement with Haisla Nation sets new course for LNG", BC Government media release, available online: Government of British Columbia

<http://www.newsroom.gov.bc.ca/2012/09/agreement-with-haisla-nation-sets-course-for-new-lng-terminal.html>

- 8. The strategic location of the Douglas Channel and its deep, protected waters have attracted industry for many years, including smelter and pulp mill activities. The Douglas Channel provides a deepwater port that is ice-free year-round. Due to its central location between the gas fields of British Columbia and Alberta and the ports and import terminals in Asia, the Douglas Channel is an ideal location for LNG development projects. It is anticipated that the Haisla Projects and the Applicant's business model will focus on export to Asia.
- 9. The Haisla have been active for many years in the Douglas Channel to facilitate and encourage LNG development by working on an ongoing basis with the provincial government of British Columbia, regulators, proponents such as LNG Canada and Kitimat LNG, gas producers, LNG purchasers, pipeline transmission companies, regional First Nations along pipeline and shipping routes, and other third parties. The development of these relationships is a critical strategic advantage for the Haisla LNG export development initiative.
- 10. The District of Kitimat, British Columbia offers community services, infrastructure, residences, hydro and power services, and a developed transportation network for motor vehicles, airplanes, helicopters and boats. It has a deep water port which can accommodate tankers, barges and ships and has sufficient land for future infrastructure development. Due to its strategic location, the transport time to Asia will be shorter than from many other ports, particularly those being developed on the Gulf Coast of the United States. Additionally, the Douglas Channel is less congested with traffic from other industries, a problem common in other deep water ports.
- 11. It is expected that the Haisla Projects Region will allow for a total of six (6) jetty sites. One of these, on DL99, is currently ear-marked to be used for a project involving a consortium. The remaining five (5) jetty sites are to be allocated as follows: one (1) will be situated on the DL309 Haisla fee simple land and the other four (4) jetties are to be situated on the Haisla leased lands. The Applicant and the Parent Company have been conducting various jetty design work and site evaluation studies to determine the best use of the Haisla Project Lands, accounting for efficiency and cost-effectiveness.

II. APPLICATION

Terms and Conditions

12. The particulars of the License are set out below:

Term:	The term of the License shall be twenty-five (25) years commencing on the date of first export (the " Term ").
Term Quantity:	The quantity of LNG that may be exported over the term of the License shall not exceed 160 million tonnes (" MMT ") (the natural gas equivalent of approximately 7,800 billion cubic feet (" Bcf ") or 220 billion m ³) (the " Term Quantity ").
Annual Quantity:	Subject to the annual tolerance, the quantity of gas that may be exported in any consecutive twelve (12) month period shall not exceed 5.8 million tonnes (" MMT ") (the natural gas equivalent of approximately 284 Bcf or 8 billion m ³) (the " Annual Quantity ").
Annual Tolerance:	The quantity of LNG that may be exported in any consecutive twelve (12) month period may exceed the maximum Annual Quantity by no more than fifteen percent (15%) in order to allow for operational design and optimization, variability in gas specification, and variance based on operating and maintenance conditions (the "Annual Tolerance").
Export Point:	The point of export of LNG from Canada will be at the outlet of the loading arm of the natural gas liquefaction terminal (the " Export Point "), which is anticipated to be located in the Northern Douglas Channel, which is in the vicinity of Kitimat, British Columbia, Canada.
Early Expiration Date:	Unless otherwise authorized by the NEB, the term of the License shall end ten (10) years after the date of Governor-in-Council approval of the issuance of the License, if the export of LNG has not commenced on or before that date (the " Early Expiration Date ").
Agent:	The License authorizes the Applicant to export gas on its own behalf and as agent on behalf of third parties with access to gas resources.
Other terms and conditions:	Any further terms and conditions as may be requested and as the NEB may consider appropriate in the circumstances.

Applicable Requirements

13. The NEB Act sets out the criteria for a license to export oil or gas in Section 118 of the NEB Act. Section 118 states as follows:

On an application for a license to export oil or gas, the Board shall satisfy itself that the quantity of oil or gas to be exported does not exceed the surplus remaining after due diligence allowance has been made for the reasonably foreseeable requirements for use in Canada, having regard to the trends in the discovery of oil or gas in Canada.

- 14. The *National Energy Board Act Part VI (Oil and Gas) Regulations*⁵ (the "**Regulations**") set out the filing requirements for oil and gas export license applications. However, the Regulations have not yet been reviewed and updated by the NEB to reflect the recent amendments to the *Jobs, Growth and Long-term Prosperity Act*⁶ (the "**Prosperity Act**"), which received Royal Assent on June 29, 2012.
- 15. On July 11, 2012, the NEB issued an *Interim Memorandum of Guidance Concerning Oil and Gas Export Applications and Gas Import Applications* under Part VI of the NEB Act (the "**Interim MOG**"). In the Interim MOG, the NEB stated that as a result of the amendments of Section 24 (public hearings) of the NEB Act, public hearings with respect to gas export and import licenses are no longer mandatory. In addition, the NEB stated that as a result of the amendments to Section 118 (criteria) of the NEB Act, there is no longer a requirement for applicants to submit information respecting the potential environmental effects of the proposed exportation and any social effects that would be directly related to those environmental effects.
- 16. On July 27, 2012, LNG Canada Development Inc. applied to the NEB for an export license pursuant to Section 117 of the NEB Act.⁷ The application was significant because it was the first application considered by the NEB under the amended NEB Act. The application was approved by the NEB, and the NEB provided further guidance on the filing requirements for export license applications. In its letter decision issued February 4, 2013, the NEB stated that it had focused its assessment of the application on the surplus criterion outlined in Section 118 of the NEB Act and could not consider unrelated matters. Moreover, the NEB stated that not all of the Section 12 requirements under the Regulations are relevant for LNG export applications. Notably, the NEB also stated that it no longer requires applicants for gas export licenses to file the information contained in Section 12(f) of the Regulations.

⁵ National Energy Board Act Part VI (Oil and Gas) Regulations, SOR/96-244.

⁶ Jobs, Growth and Long-term Prosperity Act, SC 2012, c 19.

⁷ Application for a License submitted by LNG Canada Development Inc., File OF-EI-Gas-GL-L384-2012 01 01.

- 17. In anticipation of the proposed changes to the Regulations, on September 20, 2012, the NEB initiated a consultation process with respect to the requirements for applications under the NEB Act.
- 18. On August 28, 2013, the NEB issued an updated version of the *National Energy Board Filing Manual* (the "**Filing Manual**").⁸ The amendments impacted Guide Q, which is the component of the Filing Manual that provides guidance for Export and Import Authorizations. Pursuant to Guide Q, applicants are required to file the following information for natural gas (including LNG) export license applications:
 - a) the source and volume of gas to be exported;
 - b) a description of gas supplies, including Canadian gas supply, expected to be available to the Canadian market (including underlying assumptions) over the requested license term;
 - c) a description of expected gas requirements (demand) for Canada (including underlying assumptions) over the requested license term; and
 - d) the implications of the proposed export volumes on the ability of Canadians to meet their gas requirements.
- 19. Pursuant to Guide Q of the Filing Manual, the onus is on the applicant to demonstrate that the criteria in Section 118 of the NEB Act are met. Additionally, the NEB provides further guidance stating that since the filing requirements are not prescriptive, they can be met in a variety of ways, including both quantitatively or qualitatively. It is suggested that in order to meet the filing requirements, the applicant may want to consider the following:
 - a) trends in Canadian gas demand and supply and the availability of the sources of gas to Canadians;
 - b) available gas supply from the United States and other global sources;
 - c) past trends in gas discoveries and whether, in the applicant's opinion, these trends can be extrapolated into the future and why; and

⁸ National Energy Board, "National Energy Board Filing Manual", January, 2014, available online: National Energy Board http://www.neb-one.gc.ca/clf-nsi/rpblctn/ctsndrgltn/flngmnl-eng.pdf>.

- d) the expected technological improvements in resource assessment and innovation.
- 20. On January 24, 2014, the NEB issued an additional updated version of the Filing Manual. The amendments included changes to Chapter 3, which sets out common information requirements. Specifically, Chapter 3 was amended to incorporate the NEB's *Draft Expectations for Public Involvement Programs*.
- 21. In light of the aforementioned, this application is submitted in accordance with the requirements set out in the Filing Manual, the Interim MOG, recent NEB LNG export applications and accompanying board decisions, and the requirements set out in the NEB Act and the Regulations. The Applicant seeks relief from the filing requirements contained in Section 12 of Part VI of the Regulations, except where those requirements are addressed in this application.

III. PROJECT OVERVIEW

Project Ownership and Structure

22. The LNG processing facilities under the Haisla Projects are expected to be constructed, owned, and operated by partnerships or joint ventures owned directly by the Haisla and one (1) or more industry participants. The Haisla Applications are designed to enable the commercial components of the Haisla Projects to be structured in increments that correspond to the production increments of the proposed jetties and floating LNG ("**FLNG**") vessel development and to accommodate an appropriate investment structure. Having three (3) separate licenses for a LNG Export License will allow for transaction and financing flexibility, and will provide the ability to tailor modern technology, local expertise, and marketing expertise for potentially three (3) individual projects. The Haisla's history in the area combined with the expertise of anticipated industry participants and project stakeholders will create a qualified team for all stages of the Haisla Projects' development.

Haisla LNG Projects

23. As mentioned above, it is anticipated that the Haisla Projects will be developed using a business model based on controlling two (2) components of the value chain: land and pipeline capacity. The Applicant and the Parent Company are currently in advanced-stage discussions and negotiations with a number of investors, gas producers, LNG purchasers, pipeline transmission companies, technology providers and shippers. As such, the particular business models have yet to be finalized. However, it is anticipated that between the various Haisla Projects, multiple export arrangements may be utilized.

- 24. The proposed Haisla Projects will be located within the Haisla Projects Region. As mentioned in paragraph 7 above, a map of the applicable Haisla lands is attached to this application as <u>Schedule "A"</u>.
- 25. The Haisla Projects will be developed using either barge-based or converted Moss-style FLNG vessels. The terminals will consist of vessel-based liquefaction and processing facilities, vessel-based storage tanks, and facilities to support ship berthing and cargo loading. The Applicant and the Parent Company have been working with Golar LNG with respect to FLNG vessels. The Applicant plans to utilize Golar LNG's vessels and technology, which have been designed and engineered and are of a design currently being built in Singapore by Keppel Shipyard. Golar LNG uses PRICO LNG process technology developed by Black & Veatch, which is reliable, flexible and offers simplified operation and reduced equipment count. The jetties to be used for the Haisla Projects may be either individual FLNG vessels or "double stacked", meaning that the FLNG vessels are moored side-by-side at a single jetty.
- 26. The Haisla Projects Region will allow for a total of six (6) jetty sites. One (1) of these sites is currently ear-marked for a potential project on DL99 involving a consortium. The remaining five (5) jetty sites are to be allocated as follows: one (1) will be situated on the DL309 Haisla fee simple land and the other four (4) jetties are to be situated on the Haisla leased lands. The Haisla have conducted various jetty design work and site evaluation studies with Moffat and Nichol.
- 27. The pipeline capacity required to transport sourced LNG to the Haisla Projects will include a mix of new and existing pipeline and infrastructure. The Haisla are in the advanced stages of negotiating and drafting definitive agreements with the major gas producers and pipeline transmission companies located in the vicinity with respect to securing pipeline capacity. It is expected that the Haisla Projects will rely on the Haisla's business partners or customers to source gas from their own reserves and the market.
- 28. It is anticipated that the Haisla Projects will include the following components and specifications:
 - a) each FLNG vessel will have gas intake requirement of 400 million cubic feet ("mmcf") per day;
 - b) each FLNG vessel is capable of annual production of approximately 2.5 MMT and 2.8 MMT;

- c) there will be an export capacity of 2 Bcf/day combined amongst all of the Haisla Applications;
- d) the Annual Quantity of LNG to be exported under the Haisla Applications will equal the total capacity of the Haisla Projects at full capacity; and
- e) approximately twelve percent (12%) of supplied gas will be consumed in the production of LNG.
- 29. The planned timeline for the Haisla Projects is as follows: it is estimated that development will commence in 2017-2020, subject to multiple factors including market conditions, regulatory approvals, project economics, engineering and construction, and labor availability. The Early Expiration Date requested in this application takes into consideration these factors.
- 30. Subject to receiving all necessary permits and approvals, construction of the Haisla Projects shall begin in 2017-2020 and is expected to continue for a term of up to twenty-five (25) years. Based on this timeline, it is expected that LNG exports will commence shortly thereafter. The timelines of the Haisla Projects will also depend on the contracts and relationships between the Applicant and its partners.
- 31. The requested Term of the license applied for under this application is critical component of the Haisla Projects with respect to providing long term and secure exportation services with investors, customers, suppliers and other business partners.

IV. SUPPLY AND DEMAND

The Source of Gas to be Exported

- 32. The Applicant, acting on its own behalf, in coordination with LNG Purchasers, or as agent on behalf of third parties with access to gas resources, expects to export gas for the Haisla Projects from the Western Canadian Sedimentary Basin. As mentioned above, it is expected that this gas supply will be secured through a variety of commercial arrangements, including agreements made with owners of the gas resources, gas purchase contracts, and through transactions made at market hubs. The Applicant will utilize its control of land and pipeline capacity within the Northern Douglas Channel.
- 33. It is expected that the Haisla Projects will be connected by pipeline systems to Western Canadian principal markets and hubs where large volumes of natural gas are traded. The Haisla are in discussion with a number of pipeline transmission companies and expect to use existing pipeline systems, as well as those that will be subsequently developed in the future.

The Volume of Gas to be Exported

- 34. The quantity of gas requested for export under this application for the License is necessary to support this component of the Haisla Projects, as well as provide fuel for transportation.
- 35. The Applicant submits the following:
 - a) the quantity of LNG to be exported under the Haisla Projects 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 oil or gas in Canada; and
 - b) the impact of the proposed exportation on Canadian energy and natural gas markets will not result in Canadians having difficulty in meeting their energy requirements at fair market prices.

Supply and Demand Forecasts

- 36. The role of the NEB is to assess whether 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 oil or gas in Canada.
- 37. The Applicant has requested a license term of twenty-five (25) years commencing on the date of first export of LNG under the License, and if export has not commenced on or before that date, the Term of the License shall end ten (10) years after the date of Governor-in-Council approval of the issuance of the License. Based on these timelines, the Term of the requested License may extend to 2049-2050 and the Applicant has considered below expected supply and demand during this time period.

a) Gas Supplies available to the Canadian Market and Expected Gas Requirements for Canada (Demand)

38. Due to the high volume of NEB LNG export license applications submitted in recent months, and the accompanying supply and demand forecasts submitted in connection therewith, the Applicant proposes that the NEB has sufficient supporting documentation to determine that the quantity of gas to be exported under this application will not exceed the surplus remaining. Moreover, in the letter decision dated July 3, 2014 issued by the NEB to Pieridae Energy (Canada) Ltd. in response to its application for an LNG import and export license, the NEB stated that third-party reports and data may be used to meet Guide Q filing requirements so long as the criterion in section 118 of the NEB Act are

met.⁹ The Applicant relies on a number of reports recently filed with and considered by the NEB and all of which are posted on the NEB website, as described below.

- 39. In support of its application, the Applicant specifically refers to the following: the Long Term Natural Gas Supply and Demand Forecast to 2050 (North America and Canada) prepared by Ziff Energy for the Aurora Liquefied Natural Gas Ltd. application dated November 16, 2013 (the "Ziff Aurora Forecast")¹⁰, the Supply and Demand Market Assessment prepared by Navigant Consulting, Inc. for the WesPac Midstream application dated May 28, 2014 (the "Navigant WesPac Assessment")¹¹, the Supply and Demand Market Assessment prepared by Navigant Consulting, Inc. for the Oregon LNG Marketing Company, LLC application dated January 10, 2014 (the "Navigant Oregon Assessment")¹², and the Supply and Demand Market Assessment prepared by Navigant Consulting, Inc. for the Steelhead LNG Corp. application dated June 30, 2014 (the "Navigant Steelhead Assessment")¹³.
- 40. The Applicant has set out below some key considerations with respect to gas supplies available to the Canadian market and expected gas requirements for Canada.
- 41. The Applicant refers to the Ziff Aurora Forecast¹⁴, which made the following notable conclusions:
 - a. North America's resources have much more potential for supply than demand for the period continuing until 2050;
 - b. Natural gas pricing is generally clear since it is operated through electronic trading systems, futures markets, and financial instruments;
 - c. Unconventional gas sources will serve to increase the North American gas supply, thus compensating for expected declines in conventional gas;

 ⁹ Letter Decision dated July 3, 2014 to Pieridae Energy (Canada) Ltd. in response to an Application for a License submitted by Pieridae Energy (Canada) Ltd., File OF-EI-Gas-GL-P759-2014 01 01.
 ¹⁰ Ziff Energy, "Long Term Natural Gas Supply and Demand Forecast to 2050: North America and Canada",

¹⁰ Ziff Energy, "Long Term Natural Gas Supply and Demand Forecast to 2050: North America and Canada", Prepared for Aurora Liquefied Natural Gas Ltd., November 16, 2013, available online: National Energy Board < https://docs.neb-one.gc.ca/ll-eng/llisapi.dll?func=ll&objId=2381040&objAction=browse>.

 ¹¹ Navigant Consulting, Inc., "Supply and Demand Market Assessment", Prepared for WesPac Midstream - Vancouver LLC, May 28, 2014, available online: National Energy Board < https://docs.neb-one.gc.ca/ll-eng/llisapi.dll?func=ll&objId=2483502&objAction=browse>.
 ¹² Navigant Consulting Inc., "Supply and Demand Market Assessment", Prepared for Oregon LNG Marketing

¹² Navigant Consulting Inc., "Supply and Demand Market Assessment", Prepared for Oregon LNG Marketing Company, LLC, January 10, 2014, available online: National Energy Board < https://docs.neb-one.gc.ca/ll-eng/llisapi.dll?func=ll&objId=2398195&objAction=browse>.

¹³ Navigant Consulting Inc., "Supply and Demand Market Assessment", Prepared for Steelhead LNG Inc., June 30, 2014, available online: National Energy Board < https://docs.neb-one.gc.ca/ll-eng/llisapi.dll?func=ll&objId=2486616&objAction=browse>.

 $^{^{14}}$ Supra note 10.

- d. Gas resources in North America are expected to have continuing productivity due to current and historic production, proven reserves, and probable reserves;
- e. The majority of Canada's gas resources are located in Western Canada;
- f. Production from conventional sources is generally expensive leading to more recent focus on unconventional sources and liquefied natural gas;
- g. Modern technology has lowered the cost of production, making unconventional gas more competitive;
- h. Generally, the costs of new plays decreases as the production moves forward while the costs of mature plays increases as a result of the enhanced recovery methods;
- i. Gas demand in North America can be attributed to growth in industry, power generation, and the residential and commercial sectors;
- j. Competition for Canada's natural gas exports is expected to increase;
- k. Producers can meet increasing LNG demand by increasing shale gas drilling; and
- 1. The incremental costs of proposed LNG projects will be minimal over in the long term.
- The Applicant refers to the Navigant WesPac Assessment¹⁵, Navigant Oregon 42. Assessment¹⁶, and Navigant Steelhead Assessment¹⁷, all of which made the following notable conclusions:
 - a. As demand for natural gas grows, Canada's immense shale gas resources combined with the consistency of shale gas production means that supply and demand will be closely tied together for the near future;
 - b. Unconventional natural gas is now more economical to produce due to steadily increasing supplies and modern efficient technology;
 - c. Reserve estimates are increasing as a result of new discoveries and additional data collected from exiting plays;
 - d. Increased demand for natural gas and its increasing market share will reduce price volatility;

¹⁵ Supra note 11.
¹⁶ Supra note 12.
¹⁷ Supra note 13.

- e. It is estimated that Canada's gas supply at current levels of demand is sufficient to meet Canada's domestic level of demand for approximately 405 years and combined with pipeline exports to the United States, for approximately 261 years;
- f. It is estimated that Western Canada's gas supply at current levels of demand is sufficient to meet Canada's domestic level of demand for approximately 581 years, and combined with pipeline exports to the United States, for approximately 228 years;
- g. Accounting for current levels of demand combined with quantities of gas under export licenses approved and applied for as of June 30, 2014, Canada's gas supply is expected to have a lifetime of approximately 100 years for domestic demand and 90 years when combined with pipeline exports to the United States;
- h. Accounting for current levels of demand combined with quantities of gas under export licenses approved and applied for as of June 30, 2014, Western Canada's gas supply is expected to have a lifetime of approximately 100 years for domestic demand and 80 years when combined with pipeline exports to the United States;
- i. Total recoverable natural gas resource estimates are 1,444 trillion cubic feet ("**Tcf**") in Canada (including shale, non-shale and Montney basin) and 1,177 Tcf for Western Canada (including shale, non-shale and Montney basin);
- j. Total recoverable natural gas resource estimates are 132 Tcf for the Horn River Basin, 158 Tcf for the Liard Basin, 20 Tcf for the Cordova Embayment, 449 Tcf for the Montney Formation, and 113 Tcf for the Duvernay Formation;
- k. Total recoverable natural gas resource estimates are 2,689 Tcf in the United States and 545 Tcf in Mexico;
- 1. The characteristics of shale gas are favorable for markets, including continuous spread through large formations, lower exploration risk, reliable discovery and production, and increased drilling efficiency;
- m. By 2045, it is expected that more than sixty percent (60%) of North American natural gas production will be from shale gas;
- n. The price of oil is expected to increase for the near future, estimated at \$89 per barrel by 2015 and \$129 by 2045 (American dollars);
- o. The Canadian demand for natural gas will continue to be steady at a rate of approximately 2.19%, accounting for commercial, industrial and residential demand;

- p. The increase in demand will equate to approximately 9.8 Bcf/day in 2013 compared to 19.5 Bcf/day in 2045, the majority of the growth coming from Alberta's industrial and electric generation demands; and
- q. North American natural gas demand is expected to increase by fifty-four percent (54%).
- 43. The Applicant also refers to the National Energy Board's publication *Canada's Energy Future 2013: Energy Supply and Demand Projections to 2035* ("**NEB Projections**").¹⁸ Some of the key findings of the NEB Projections are as follows:
 - a. Canada's energy resource base is sufficient to meet Canada's needs for many generations;
 - b. Canada's energy production will grow exponentially in the future due to increased exports while the energy consumed by Canadians will grow only moderately due to improved efficiency;
 - c. Technological advancements in natural gas drilling and well completion methods have improved the North American energy market by making supply much higher than demand;
 - d. Technological advancements have also increased the ability of producers to recover natural gas from shale and tight gas formations;
 - e. In 2012, the top LNG exporters were Qatar, Malaysia, Australia, Nigeria and Indonesia, shipping to primarily Asia and Europe;
 - f. Long-term contracts which have pricing connected to the crude oil price allows for reliable supply to be achieved;
 - g. Since international gas prices are higher than those in North America, there is increased desire from producers and market participants to develop LNG export terminals in North America; and
 - h. It is expected that drilling activity for natural gas will increase in the near future, utilizing modern technology in drilling and well completion.
- 44. In September, 2011, the government of British Columbia released *Canada Starts Here: The BC Jobs Plan* (the "**BC Jobs Plan**").¹⁹ The plan focuses on building eight (8) key

¹⁸ National Energy Board, "Canada's Energy Future 2013: Energy Supply and Demand Projections to 2035", November, 2013, available online: National Energy Board http://www.neb-one.gc.ca/clf-nsi/rnrgynfmtn/nrgyrftr/2013/nrgftr2013-eng.pdf>.

industries, including natural gas. The plan was the basis for economic growth in the province focusing on the LNG industry by developing the province's natural resources and taking advantage of growing Asian markets. The BC Jobs Plan set a target of developing at least three (3) LNG facilities in the province of British Columbia by 2020. In addition, the government established a new ministry specifically dedicated to natural gas and LNG development, the Ministry of Natural Gas Development.

- 45. To improve understanding of the LNG sector, the Ministry of Natural Gas Development published *LNG 101: A Guide to British Columbia's Liquefied Natural Gas Sector* ("**LNG 101**").²⁰ LNG 101 provides information on LNG, including extraction and exporting and the history of LNG in the province of British Columbia. In addition, LNG 101 sets out information on the industry, proponents and proposed projects, and potential market impact of LNG development.
- 46. The Applicant also refers to British Columbia's Natural Gas Strategy: Fuelling B.C.'s Economy for the Next Decade and Beyond (the "Natural Gas Strategy").²¹ According to the Natural Gas Strategy, the Province of British Columbia is planning to continue to develop the natural gas industry for the next ten (10) years. This includes developing an LNG plant and LNG facilities. The source of gas for these projects is expected to come from the Horn River Basin, the Montney Basin, the Liard Basin and the Cordova Basin. While British Columbia currently produces three (3) Bcf/day, which is more than one (1.1) Tcf/year of marketable gas, it is expected that to meet proposed LNG development targets, annual production will reach approximately three (3) Tcf/year by 2020. As part of the province's plan under the Natural Gas Strategy, it is emphasized that demand for natural gas is growing in Asia: particularly in China to meet its modernization demands and in Japan to meet its fuel supply. The Natural Gas Strategy emphasizes that increased export of LNG has the potential to result in lower greenhouse gas emissions and new jobs and business opportunities for British Columbia. The Natural Gas Strategy further underscores British Columbia's leading position to develop the capacity to export LNG due to the current development being undertaken near Kitimat at the Douglas Channel. LNG projects in this area are expected to bring in billions of dollars in investment, exploration, and development. Such opportunities are fundamental to the province for maintaining current markets and promoting industry for increased jobs and resource development. Lastly, the Natural Gas Strategy highlighted that market diversification is

¹⁹ British Columbia, "Canada Starts Here: The BC Jobs Plan", September 11, 2012, available online: BC Jobs Plan http://www.bcjobsplan.ca/wp-content/uploads/BC-Jobs-Plan-PDF.pdf>.

²⁰ British Columbia, Ministry of Natural Gas Development, "LNG 101: A Guide to British Columbia's Liquefied Natural Gas Sector", available online: Government of British Columbia

http://www.gov.bc.ca/mngd/doc/LNG101.pdf>.

²¹ British Columbia, Ministry of Energy and Mines, "British Columbia's Natural Gas Strategy: Fuelling B.C.'s Economy for the Next Decade and Beyond", released February 3, 2012, available online: Government of British Columbia http://www.gov.bc.ca/ener/popt/down/natural_gas_strategy.pdf>.

necessary for advancing and growing the natural gas industry, especially with respect to LNG sales to Asia.

- 47. The Applicant refers to Liquefied Natural Gas: A Strategy for B.C.'s Newest Industry (the "**LNG Strategy**").²² According to the LNG Strategy, LNG trade at the global level doubled between 2000 and 2010 and is predicted to multiply again by approximately fifty percent (50%) by 2020. The LNG Strategy emphasizes that the province is committed to working with investors in the LNG sector with respect to LNG export facilities. The province intends to promote additional LNG facility developments with the goal of generating new jobs and economic development in the province. The purpose of this is threefold: to maintain British Columbia's competitive status in the global LNG market; to maintain British Columbia's position as a leader in climate change and clean energy; and to maintain affordable energy rates for communities and industry. The LNG Strategy stresses that British Columbia has a plentiful supply of natural gas, including untapped resources in the northern part of the province. The development of shale gas has improved accessibility and has also reduced fears of shortages. In addition, new and expanded markets in Asia have increased opportunities for the province to compete for its share of the market. According to the LNG Strategy, British Columbia has an advantage in the Asian market due to a number of factors, including, its proximity to Asia, secure and stable government, immense reserves, excellent environmental standards, reputable service sector, comprehensive regulatory regime, and established relations with communities and First Nations. In conclusion, the LNG Strategy determines that developing the LNG industry is necessary for job growth, economic diversification, skills training, clean-energy development, economic strength, improvements in public services, and affordable energy solutions.
- 48. Lastly, one-year after publishing the LNG Strategy, British Columbia produced a oneyear update to the LNG Strategy entitled *LNG: British Columbia's Liquefied Natural Gas Strategy - One Year Update* (the "**LNG Strategy Update**").²³ According to the LNG Strategy Update, significant progress was made during the one-year period. The province is still working on making the transformation from natural gas producer to global supplier. The industry is working to create a prosperous and strong future for the province and its communities. For example, as mentioned above, the province had a goal of having at least three (3) LNG facilities by 2020. The province has also focused on trade missions to Asia to promote trade and relationships amongst its potential customers. In addition, billions of dollars have been invested in order to acquire assets and form

²² British Columbia, Ministry of Energy and Mines, "Liquefied Natural Gas: A Strategy for B.C.'s Newest Industry", available online: Government of British Columbia

<http://www.gov.bc.ca/ener/popt/down/liquefied_natural_gas_strategy.pdf>.

²³ British Columbia, Ministry of Energy, Mines and Natural Gas, "LNG: British Columbia's Liquefied Natural Gas Strategy One Year Update", available online: Government of British Columbia <

http://www.gov.bc.ca/com/attachments/LNGreport_update2013_web130207.pdf>.

corporate partnerships and ventures. All of the industries' major players are working to build and maintain their competitive lead in this actively growing market. Importantly, the province recognizes the need to build a sustainable industry to ensure future prosperity for British Columbians and Canadians. This means ensuring the province's commitment to clean energy and climate change initiatives and creating long-term jobs for skilled and qualified employees. In summary, the province is keenly interested and committed to developing the LNG export industry.

- 49. At the total amount of LNG included under the Haisla Applications (2 Bcf/day), the Applicant expects that the gas resource life in Canada will be between 100 and 110 years' of supply accounting for only domestic demand and 90 and 100 years' of supply accounting for both domestic and foreign demand, in both cases taking into account current levels of consumption and export licenses approved and applied for at the time of this application. In considering Western Canada gas resource life, the Applicant expects that the resource life will be between 95 and 105 years' of supply accounting for only domestic demand and 70 and 80 years' of supply accounting for both domestic and foreign demand, in both cases taking into account current levels of consumption and export licenses approved and applied for export licenses will proposed projects under the approved and applied for export licenses will proceed, the resource lives may reasonably be expected to last well in excess of 100 years.
- 50. Based on the analysis above, the Applicant submits that the size of the gas resource in North America is more than sufficient to meet domestic demand in Canada and the United States, and that the Haisla Projects will not significantly impact the lifecycle of the gas resource during the requested License Term. The Applicant submits that Canada's abundant natural gas resources and competitive natural gas market will provide more than sufficient supplies to meet Canada's natural gas demands for the maximum term of the requested license (2049-2050) and indeed for decades beyond that.
- 51. In addition, the current and planned activity in the region, combined with British Columbia's commitment to the LNG industry, is a strong indicator of the positive impacts that LNG development will have in the future. Past trends in gas discoveries and trends can be extrapolated into the future and it is expected that the industry will improve in efficiency due to expected technological improvements in resource assessment and innovations.
- 52. In conclusion, the Applicant suggests that the above supports the argument that the quantity of natural gas to be exported by the Applicant 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 oil or gas in Canada.

b) Implications of Proposed Export Volumes

- 53. Due to the high volume of NEB LNG export license applications submitted in recent months, and the accompanying forecasts with respect to proposed export volumes submitted in connection therewith, the Applicant proposes that the NEB has sufficient supporting documentation to determine that Canadians have the ability to meet their natural gas requirements at fair market prices and that the gas supply requested under this application is surplus to reasonably foreseeable Canadian requirements. Moreover, in the letter decision dated July 3, 2014 issued by the NEB to Pieridae Energy (Canada) Ltd. in response to its application for an LNG import and export license, the NEB stated that third-party reports and data may be used to meet Guide Q filing requirements so long as the criterion in section 118 of the NEB Act are met.²⁴ The Applicant relies on a number of reports recently filed with and considered by the NEB and all of which are posted on the NEB website, as described below.
- 54. In support of its application, the Applicant specifically refers to the following: A Description of the Implications on the Ability of Canadians to Meet Their Natural Gas Requirements and an Evaluation of Whether this Gas is Surplus to Reasonably Foreseeable Canadian Requirements prepared by Roland Priddle for the Aurora Liquefied Natural Gas Ltd. application dated November 19, 2013 (the "Priddle Aurora Assessment")²⁵, An Assessment of Present Natural Gas Market Circumstances and the Impact of Exports as Applied for by Oregon LNG Marketing Company, LLC upon Canadians to Meet Their Future Energy Requirements at Fair Market Prices prepared by Gordon Pickering for the Oregon LNG Marketing Company, LLC application dated January 10, 2014 (the "Pickering Oregon Assessment")²⁶, the Export Impact Assessment: An Assessment of the Present Natural Gas Market Circumstances and the Impact of Exports as Applied for by WesPac Midstream Vancouver LLC, upon Canadians to Meet Their Future Energy Requirements over the Requested License Term prepared by Gordon Pickering for the VesPac Midstream application dated May 28,

²⁵ Roland Priddle, "A Description of the Implications on the Ability of Canadians to Meet their Natural Gas Requirements and an Evaluation of Whether this Gas is Surplus to Reasonably Foreseeable Canadian Requirements", Prepared for Aurora Liquefied Natural Gas Ltd., November 19, 2013, available online: National Energy Board https://docs.neb-one.gc.ca/ll-eng/llisapi.dll?func=ll&objId=2381040&objAction=browse>. ²⁶ Gordon Pickering, "An Assessment of the Present Natural Gas Market Circumstances and the Impact of Exports"

as Applied for by Oregon LNG Marketing Company, LLC upon Canadians to Meet their Future Energy Requirements at Fair Market Prices", Prepared for Oregon LNG Marketing Company, LLC, January 10, 2014, available online: National Energy Board < https://docs.neb-one.gc.ca/lleng/llisapi.dll?func=ll&objId=2398195&objAction=browse>.

²⁴ *Supra* note 9.

2014 (the "**Pickering WesPac Assessment**")²⁷, and the *Export Impact Assessment: An* Assessment of the Present Natural Gas Market Circumstances and the Impact of Exports as Applied for by Steelhead LNG Corp. upon Canadians to Meet Their Future Energy Requirements over the Requested License Term prepared by Gordon Pickering for the Steelhead LNG Corp. application dated June 30, 2014 (the "**Pickering Steelhead Assessment**")²⁸.

- 55. The Applicant refers to the Priddle Aurora Assessment²⁹, which made the following notable conclusions:
 - a. North American demand from residential, commercial and industrial consumers has grown in recent years;
 - b. Canada has been able to supply natural gas at lower prices compared to other global suppliers;
 - c. There is confidence in the North American gas market due to functioning regulation, mature networks and infrastructure, integration amongst markets; and industry cooperation;
 - d. The North American markets adequately provide for multiple options to purchasers and sellers ensuring that natural gas is effectively and efficiently developed, transported and sold to market;
 - e. The export of LNG from Canada's West Coast will open a new market for natural gas from the Western Canadian Sedimentary Basin; and
 - f. North American markets will be able to adapt to proposed gas exports by adjusting accordingly with respect to supply, gas prices, and local demand.
- 56. The Applicant refers to the Pickering Oregon Assessment³⁰, which made the following notable conclusions:

²⁷ Gordon Pickering, "Export Impact Assessment: An Assessment of the Present Natural Gas Market Circumstances and the Impact of Exports as Applied for by WesPac Midstream - Vancouver LLC, upon Canadians to Meet Their Future Energy Requirements over the Requested License Term", Prepared for WesPac Midstream - Vancouver LLC, May 28, 2014, available online: National Energy Board < https://docs.neb-one.gc.ca/lleng/llisapi.dll?func=ll&objId=2483502&objAction=browse>.
²⁸ Gordon Pickering, "Export Impact Assessment: An Assessment of the Present Natural Gas Market Circumstances

²⁸ Gordon Pickering, "Export Impact Assessment: An Assessment of the Present Natural Gas Market Circumstances and the Impact of Exports as Applied for by Steelhead LNG Corp. upon Canadians to Meet Their Future Energy Requirements over the Requested License Term", Prepared for Steelhead LNG Corp., June 30, 2014, available online: National Energy Board < https://docs.neb-one.gc.ca/ll-</p>

eng/llisapi.dll?func=ll&objId=2486616&objAction=browse>.

 $^{^{29}}$ Supra note 25.

 $^{^{30}}$ Supra note 26.

- a. The potential for development in the Western Canadian Sedimentary Basin is immense and market changes are expected to be long-lived;
- b. North America's natural gas market has surplus supply;
- c. Increased supply from the Marcellus and Utica basins (located in the United States) is expected to decrease the United States' demand for gas from Canada and in fact provide a secure source of gas to Eastern Canada;
- d. Natural gas has become more accessible to Canadians across the country which has improved supply and reduced price fluctuations;
- e. Competitive natural gas prices are expected to continue for the foreseeable future;
- f. It is unlikely that all proposed LNG export projects will go ahead; rather, export volumes in the 8 Bcf/day to 10 Bcf/day range from North America seem likely which only represents approximately ten percent (10%) of the current North American natural gas market and less towards the end of the forecast period;
- g. It is unlikely that precautions will be needed to protect against exceptional demand on Canada's natural gas supply; and
- h. In the event of unexpected demands, North America's gas market has physical and financial tools in place to alleviate potential pricing concerns.
- 57. The Applicant refers to the Pickering WesPac Assessment³¹, which made the following notable conclusions:
 - a. The proportion of the energy market supplied by natural gas in North America has increased to approximately one-quarter (1/4) due to the development of interconnected pipeline systems and local distribution systems;
 - b. North America has considerable LNG import and export facilities;
 - c. North America has twenty-four (24) significant trading hubs and regional market centers connected to each other through various import and export pipes, pipeline systems and connection points which allows gas to flow particularly well between Canada and the United States;
 - d. The North American gas markets have adapted to market fluctuations and challenges, including regulatory developments and natural catastrophes such as hurricanes;

³¹ *Supra* note 27.

- e. The natural gas industry is competitive due to low prices, low emissions, and modern technologies to increase gas supply such as hydraulic fracturing and horizontal drilling;
- f. Due to probable but unproven reserves and the potential for new countries to enter the natural gas market, natural gas prices present some ambiguity in terms of predicting long-term stability, however North America's gas market is considered the forerunner.
- 58. Lastly, the Applicant refers to the Pickering Steelhead Assessment³², which made the following notable conclusions:
 - The Canadian gas market has seen successful growth and development in the past and it can be assumed that this will continue into the future, even allowing for increased production from new and proposed LNG projects with terms lasting until 2050;
 - b. Natural gas has numerous properties which make it ideal for development, including low carbon intensity and emissions, high compressibility, and low viscosity. However, since it is a gas, it must be transported by pipeline which in the past has reduced its market share;
 - c. Canada ranks third in natural gas production, producing over fifteen (15) Bcf/day;
 - d. Canada has over 320,000 kilometers of natural gas transmission, distribution and service pipelines while the United States has over 3,800,000 kilometers;
 - e. Canada and the United States both have hundreds of aboveground and underground storage facilities, which have been used to provide both financial advantages and potential for risk management;
 - f. Canada and the United States have multiple LNG import and re-gasification facilities that have not been operating at full capacity and they have the potential to be converted into LNG export facilities;
 - g. Hydraulic fracturing and horizontal drilling improvements have made shale gas much more efficient to recover, leading to thriving production in the United States, which is expected to benefit Canada;

³² Supra note 28.

- h. Average price impacts for exports across North America and in the Gulf of Mexico region were all under ten percent (10%), with many recorded in the one or two percent (1%-2%) range;
- i. Increased shall gas production is expected to provide stability between supply and demand, which will serve to reduce price volatility and promote healthy prices;
- j. Provincial governments, including those of British Columbia, are particularly supportive of building a competitive LNG export market;
- k. Since the gas market is generally a North American market at this time, it is expected that even with future exports, there will not be any notable changes to gas prices as a result; and
- 1. While safeguards are in place against extraordinary demands being placed on Canadians energy supply, it is suggested that it is improbable that these will be needed due to the size of the North American market and the relatively insignificant market share represented by recent proposed LNG export projects.

Summary and Conclusions of Supply and Demand

- 59. Based on the analysis above, the Applicant submits that during the maximum period covered by this application (i.e. a twenty-five (25) year term extending no longer than 2049-2050), there is sufficient supply of natural gas to meet Canadian demands and there is also surplus supply available for export. Numerous regions, particularly those in Asia, lack sufficient natural gas reserves to meet their domestic demands. Such regions rely on natural gas imports and will rely more heavily on imports going forward.
- 60. The volume of gas requested by the Applicant in this application is less than the volume requested by other applicants under similar NEB LNG export license applications, and even if the volume of all of the Haisla Applications are considered together, the volume requested is relatively modest. It is estimated that the amount of LNG under the Haisla Applications will be approximately two percent (2%) of the total Canadian market during the proposed project life of the Haisla Projects. Thus, the requested total volume of 715 Bcf/year for the Haisla Applications is insignificant in relationship to the size of the Canadian market and the North American market at current levels of gas supply and for predicted levels over the course of the requested license term. Furthermore, the price impacts, if any, are expected to be insignificant.
- 61. In conclusion, the Applicant submits that the market will be able to reliably support its application for an LNG export license. The proposed export by the Applicant is small in volume compared to the overall Canadian and North American supply. The proposed

export under this application, taking into account the size and significance of the Haisla Projects, are not expected to impair the ability of Canadian's to meet their gas requirements over the term of the requested license. Moreover, the natural gas to be exported by the Applicant would not exceed the surplus remaining after allowance for the reasonably foreseeable requirements for use in Canada, having regard to the trends in gas discoveries and the expected technological improvements in resource assessment and innovations. In addition, it is submitted that Canadians will not need to adjust their energy consumption patterns by means of energy conservation or alternative sources as a result of this application. It is not expected that the Haisla Projects will have any significant impact on future gas prices, and it is anticipated that there will be no extraordinary demands placed on Canadian supply as a result of the Haisla Projects.

V. CONCLUSION AND RELIEF REQUESTED

- 62. This application meets the requirements set out in the Filing Manual, the Interim MOG, recent NEB LNG export applications and accompanying board decisions, and the requirements set out in the NEB Act and the Regulations.
- 63. The Applicant respectfully requests relief from the information requirements set out in Section 12 of Part VI of the Regulations, except where those requirements are addressed within this application.
- 64. Based on the information provided, the Board should be satisfied that the quantity of gas to be exported by the Applicant 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 oil and gas in Canada.
- 65. Based on the information provided, the Board should be satisfied that the quantity of gas to be exported by the Applicant will not cause Canadians difficulty in meeting their energy requirements over the proposed term of the license, taking into account the size and significance of the proposed project, trends in reserve additions, future gas requirements, and anticipated future gas prices. Moreover, Canadians will not need to adjust their energy consumption patterns and there are safeguards in place to protect against extraordinary demands on Canadian supply.

- 66. Thus, the Applicant respectfully requests that the NEB issue a license authorizing the export of gas subject to the following terms and conditions:
 - **Term:** The term of the License shall be twenty-five (25) years commencing on the date of first export.
 - **Term Quantity:** The quantity of LNG that may be exported over the term of the License shall not exceed 160 MMT (natural gas equivalent of approximately 7,800 Bcf or 220 billion m³).
 - Annual Subject to the annual tolerance, the quantity of gas that may be exported in any consecutive twelve (12) month period shall not exceed 5.8 MMT (the natural gas equivalent of approximately 284 Bcf or 8 billion m³).
 - Annual The quantity of LNG that may be exported in any consecutive twelve (12) month period may exceed the maximum Annual Quantity by no more than fifteen percent (15%) in order to allow for operational design and optimization, variability in gas specification, and variance based on operating and maintenance conditions.
 - **Export Point:** The point of export of LNG from Canada will be at the outlet of the loading arm of the natural gas liquefaction terminal, which is anticipated to be located in the Northern Douglas Channel, which is in the vicinity of Kitimat, British Columbia, Canada.
 - EarlyUnless otherwise authorized by the NEB, the term of the LicenseExpirationshall end ten (10) years after the date of Governor-in-CouncilDate:approval of the issuance of the License, if the export of LNG has not
commenced on or before that date.
 - Agent: The License authorizes the Applicant to export gas on its own behalf, and as agent on behalf of third parties with access to gas resources.

Other termsAny further terms and conditions as may be requested and as theand conditions:NEB may consider appropriate in the circumstances.

ALL OF WHICH IS RESPECTFULLY SUBMITTED this 28th day of August, 2014.

CEDAR 3 LNG EXPORT LTD.

by its counsel, McMillan LLP

Per:

Robin Junger

Please direct all communications with respect to this application to:

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SCHEDULE "A"

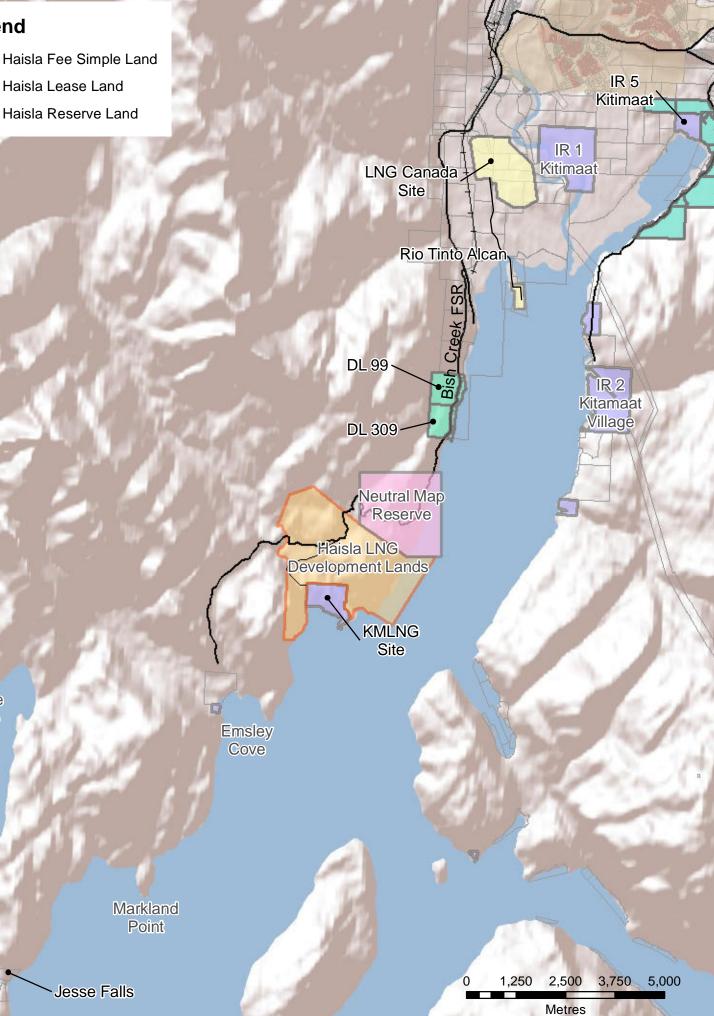
MAP OF HAISLA PROJECTS REGION

- Please see attached map -

Legend



Jesse Lake



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