

**NATIONAL ENERGY BOARD**

IN THE MATTER OF the *National Energy Board Act*, RSC 1985, c N-7  
("NEB Act"), as amended;

AND IN THE MATTER OF an application by Aurora Liquefied Natural Gas  
Ltd. for a licence pursuant to section 117 of the *NEB Act* authorizing the  
export of liquefied natural gas.

**TO: Ms. Sheri Young, Secretary**  
**National Energy Board**  
**444 - 7<sup>th</sup> Avenue S.W.**  
**Calgary, Alberta T2P 0X8**

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**AURORA LIQUEFIED NATURAL GAS LTD.**  
**APPLICATION FOR LICENCE TO EXPORT LIQUEFIED NATURAL GAS**

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November 29, 2013

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## I. APPLICATION

1. Aurora Liquefied Natural Gas Ltd. ("Aurora LNG Ltd." or the "Applicant"), a corporation organized under the laws of the Province of Alberta that is owned by Nexen Energy ULC ("Nexen"), INPEX Corporation ("INPEX") and JGC Exploration Canada Ltd. ("JGC") (Nexen, INPEX and JGC collectively referred to herein as the "Project Owners"), hereby applies to the National Energy Board ("NEB" or "Board") pursuant to section 117 of the *National Energy Board Act* ("NEB Act")<sup>1</sup> for a licence to export liquefied natural gas ("LNG") with the following terms and conditions ("Licence"):

- (a) **Term:** The term of the Licence shall be 25 years commencing on the date of first export of LNG under the Licence ("Term");
- (b) **Term Quantity:** The quantity of LNG that may be exported over the term of the Licence, shall not exceed 640 million tonnes ("MMT") (natural gas equivalent of approximately 30,500 billion cubic feet ("Bcf") or 860 e<sup>9</sup>m<sup>3</sup>) ("Term Quantity");<sup>2</sup>
- (c) **Annual Quantity:** Subject to the Annual Tolerance, the quantity of LNG that may be exported in any consecutive 12-month period shall not exceed 24 MMT (natural gas equivalent of approximately 1140 Bcf or 32 e<sup>9</sup>m<sup>3</sup>) ("Annual Quantity");
- (d) **Annual Tolerance:** The quantity of LNG that may be exported in any consecutive 12-month period may exceed the maximum Annual Quantity by 15 percent in order to allow for operational and design optimization, variability in gas specification, and operating and maintenance variables ("Annual Tolerance");
- (e) **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 ("Export Point"), which is anticipated to be located in the vicinity of Prince Rupert, British Columbia, Canada;
- (f) **Early Expiration Date:** Unless otherwise authorized by the Board, the term of the Licence shall end 10 years after the date of Governor-in-Council approval of the issuance of the Licence, if the export of LNG has not commenced on or before that date ("Early Expiration Date"); and
- (g) Any further terms as may be requested and as the Board may consider appropriate in the circumstances.

2. Section 118 of the *NEB Act* specifies what the Board is legally mandated and authorized to consider for an LNG export licence application. Section 118, which is referred to as the Surplus Criterion, reads as follows:

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<sup>1</sup> RSC 1985, c N-7.

<sup>2</sup> NEB conversion factor used 1 m<sup>3</sup> gas = 35.3 cubic feet of natural gas and 1 Tonne LNG = 47, 257 cubic feet of natural gas. The Term Quantity reflects expected ramp-up volumes and includes the Annual Tolerance.

"On an application for a licence 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 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."

3. Section 12 of the *National Energy Board Act Part VI (Oil and Gas) Regulations* ("*Regulations*")<sup>3</sup> also contains filing requirements for gas export licence applications. However, the *Regulations* have not been amended to reflect the amendments that were made to sections 24 and 118 of the *NEB Act* pursuant to the *Jobs, Growth and Long-Term Prosperity Act* ("*Prosperity Act*"),<sup>4</sup> which received Royal Assent on June 29, 2013. To the extent required, the Applicant requests exemption from the filing requirements contained in section 12 of the *Regulations* (including Schedules I and II) that are not otherwise addressed in this Application.

4. On July 11, 2012 the Board issued an *Interim Memorandum of Guidance Concerning Oil and Gas Export Applications and Gas Import Applications under Part VI of the National Energy Board Act* ("*MOG*"). In the *MOG*, the Board stated that as a result of the amendments to section 24 of the *NEB Act*, public hearings with respect to gas export licences are no longer mandatory. The Board also stated that as a result of the amendments to section 118 of the *NEB Act*, it no longer requires applicants for gas export licences to file "information respecting the potential environmental effects of the proposed exportation and any social effects that would be directly related to those environmental effects" pursuant to subsection 12(f) of the *Regulations*.

5. On July 27, 2012, LNG Canada Development Inc. ("*LNG Canada*") filed an application for an LNG export licence with the Board.<sup>5</sup> This was the first application that was considered by the Board under the amended *NEB Act*. The Board approved LNG Canada's application and provided further guidance on the filing requirements for export licence applications. In its letter decision, the Board said that it had focused its assessment of the application on the Surplus Criterion. The Board also found that not all of the section 12 requirements remain applicable or relevant:

"In its Interim Memorandum of Guidance Concerning Oil and Gas Export Applications and Gas Import Applications under Part VI of the National Energy Board Act, dated 11 July 2012, the Board indicated that it no longer requires applicants for gas export licences to file the information contained in Section 12(f) of the [*Regulations*].

... The Board also recognizes that not all of the filing requirements contained in Section 12 of the [*Regulations*] are relevant for this Application."<sup>6</sup>

6. On September 20, 2012, pending a review and update of the *Regulations*, the Board initiated a consultation process concerning, among other things, whether the information required for long-term

<sup>3</sup> SOR/96-244.

<sup>4</sup> SC 2012, c 19.

<sup>5</sup> File OF-EI-Gas-GL-L384-2012-01 01.

<sup>6</sup> *Ibid* at page 10.

export licence applications should be reduced given the amendments to the *NEB Act*. To the Applicant's knowledge, that consultation process has not yet been completed.

7. On August 28, 2013, the Board issued a new version of the Filing Manual. Guide Q requires applicants to file the following information for gas export licence applications:

- the source and volume of gas to be exported;
- a description of gas supplies, including Canadian gas supply, expected to be available to the Canadian market (including underlying assumptions) over the requested licence term;
- a description of expected gas requirements (demand) for Canada (including underlying assumptions) over the requested license term; and
- the implications of the proposed export volumes on the ability of Canadians to meet their gas requirements.

8. Guide Q also states that "the filing requirements, by their very nature, are not prescriptive and can be met in a variety of ways, including quantitatively or qualitatively" and provides further guidance in that regard.

9. In accordance with the new Filing Manual, the MOG and the Board's LNG Canada decision, the information provided by the Applicant in support of this Application is focused on the Surplus Criterion in section 118 of the *NEB Act*.

## **II. PROJECT OVERVIEW**

### **(a) Aurora LNG Project**

10. The Project Owners propose to develop the Aurora LNG project, which will include an LNG terminal comprised of a natural gas liquefaction plant, LNG storage, and marine loading terminal ("LNG Terminal"). Prospective sites in the vicinity of Prince Rupert, British Columbia are currently being assessed and evaluated. The LNG Terminal will convert natural gas into LNG for shipment by tanker to key growth markets, where it will be regasified and distributed.

11. New pipeline capacity will be required to transport sourced gas to the Aurora LNG project site. A variety of possible routes are being examined. These routes are expected to make use of existing pipeline and other linear infrastructure and rights-of-way to minimize the extent of new disturbance and reduce costs, where feasible. The Applicant has existing long-term relationships with all of the major pipeline providers and has entered into preliminary discussions with the pipeline providers to explore possible transmission options.

12. The LNG Terminal will include a marine jetty and LNG loading facility capable of accommodating Q-Flex LNG carriers, with cargo capacity of 210,000 cubic metres ("m<sup>3</sup>") to 217,000 m<sup>3</sup>. LNG will be

delivered from the LNG Tank Area to the berth through pipelines supported on an elevated pile-supported trestle. The loading of LNG tankers will be conducted from loading platforms located at the end of the jetty. The facility will allow concurrent loading of tankers at adjacent berths.

13. The natural gas liquefaction plant is planned for an initial two processing units or "trains" with a total capacity of 12 million tonnes per annum ("MTPA") and two LNG storage tanks. Full design build out includes potential expansion for an additional two liquefaction trains (six MTPA per train) and an additional LNG storage tank. The Annual Quantity of gas to be exported under the Licence will equal the total capacity of the LNG Terminal at full build out.

14. The planned commissioning and first cargo is expected to be in the 2021 to 2023 timeframe for the initial two trains. Timing and commissioning of the remaining two trains to full site build out will be influenced by a variety of factors such as: LNG market conditions; project economics and the labour market. The Early Expiration Date requested by the Applicant is justified by these factors, as well as by the anticipated timeframe required to: (1) obtain all of the necessary regulatory approvals for the LNG Terminal and supporting infrastructure; (2) complete the detailed engineering and construction of same; and (3) overcome potential unforeseen delays.

15. An annual 15 percent tolerance to accommodate and manage variability in operating conditions is requested. Variability in the quantity of LNG may be due to, but not limited to, maintenance, natural gas specifications and operational optimizations.

**(b) Project Ownership**

16. Aurora LNG Ltd. is jointly owned by Nexen (a wholly owned subsidiary of CNOOC Limited), INPEX and JGC. In August 2012, Nexen and INPEX Gas British Columbia Ltd. ("IGBC"), where INPEX and JGC are shareholders, entered into a joint venture to develop the shale gas resource potential in the Horn River, Cordova and Liard basins in northeast British Columbia. In order to maximize the value of such shale gas resources, the Project Owners created a downstream joint venture which was subsequently named Aurora LNG. Together, the Project Owners bring a unique combination of expertise, market access, and decades of experience in the global LNG industry to provide complementary experience in every aspect of the LNG value chain from upstream production to export/import terminal engineering, construction, operation and marketing.

**(i) Nexen**

17. As operator of the Project Owner's upstream assets, Nexen focuses on operational excellence and has emerged as an industry leader in the development of shale gas in northeast British Columbia. The CNOOC Group, of which CNOOC Limited is a subsidiary, is a diversified energy holding company with interests in upstream, midstream and downstream businesses including CNOOC Gas & Power Ltd. ("CGPL"). CGPL is currently the largest importer of LNG into China with 12.3 MTPA of LNG import capacity, an additional 8.5 MTPA under construction and plans to expand to 60 MTPA of LNG import capacity by 2020 to meet China's growing domestic demand.

**(ii) INPEX**

18. As an industry leader in LNG in Asia, INPEX currently has working interests in seven LNG projects in the Asia-Pacific region including a 100% working interest in the Naoetsu LNG receiving terminal in Japan, which will be in service in 2014. INPEX has been supplying LNG to Japan, Korea, Taiwan and other Asian customers since 1977 through its LNG projects and has developed strong relationships with Japanese and other Asian utility customers who make up the majority of global LNG demand. Through INPEX and CNOOC, the Project Owners benefit from well-established networks with customers in key growth markets.

**(iii) JGC Corporation (parent company of JGC)**

19. Since 1972, JGC Corporation has become one of the world's most experienced companies in the design and construction of facilities for the global LNG industry. As a leading provider of engineering, procurement and construction services, JGC Corporation has designed and built a third of the world's LNG capacity including LNG projects in Indonesia, Malaysia, Yemen, Nigeria, Egypt, Australia and Papua New Guinea.

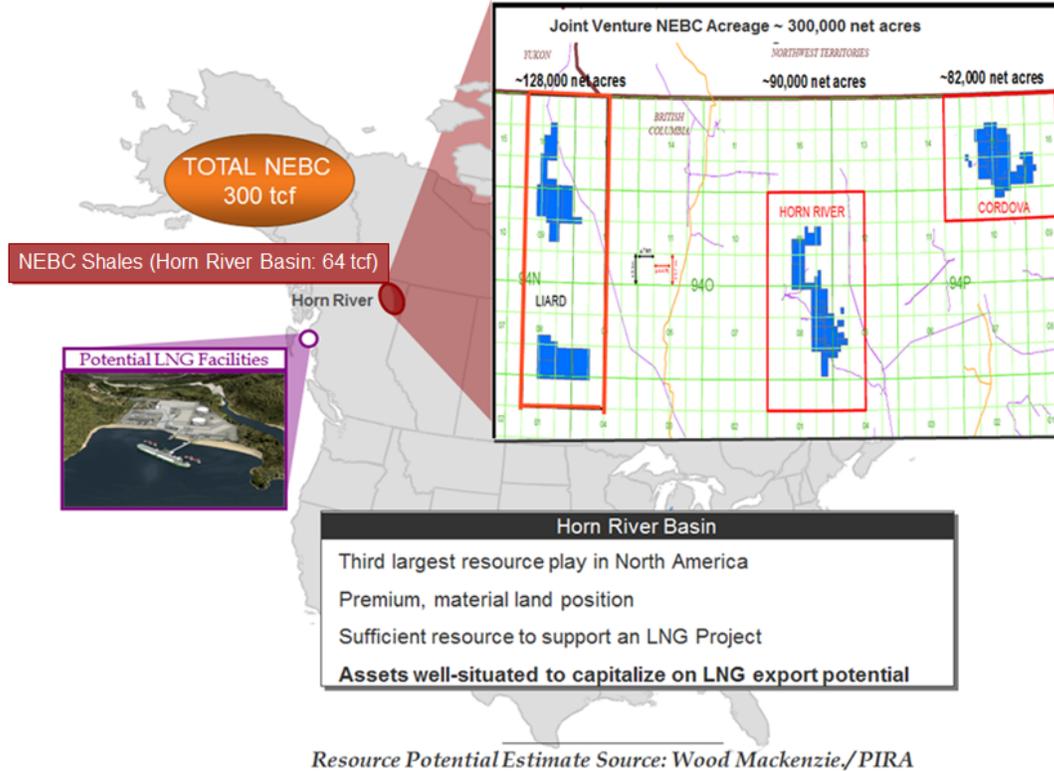
**III. GAS SUPPLY AND DEMAND**

**(a) The Source of Gas to be Exported**

**(i) Proprietary Sources of Gas Supply**

20. Recognizing the potential of shale gas early, Nexen began acquiring large blocks of high-quality acreage in the Horn River and Cordova basins in 2006. These regions have proven to be some of the most prospective gas fields in North America. In 2010, Nexen purchased additional land in the Cordova and Liard basins. In 2012, appreciating the high quality of Nexen's northeast British Columbia shale gas assets and technical and execution teams, IGBC entered into a joint venture with Nexen to develop this resource. IGBC is a corporation organized under the laws of British Columbia. Nexen and IGBC currently hold approximately 300,000 acres of shale gas resource within three basins: Liard, Horn River and Cordova, in northeast British Columbia (see **Figure 1**). All acreage shown in Figure 1 is included in the joint venture, facilitating complete alignment on development goals.

Figure 1: Shale Gas Land Resource



21. The Horn River is very early in the development cycle and still contains considerable remaining contingent resource to be developed. Nexen and IGBC consider the Liard and Cordova basin lands to contain high-potential shale gas opportunities and are in the initial planning and exploratory stages of development. In the latter part of 2013, the joint venture completed drilling the first of two high-pressure, high-temperature lease-earning wells in Liard and have prepared and spudded the second one. Further lease-earning and appraisal work is planned for the Liard and Cordova basins in 2014. Spending in the Liard basin alone could exceed CDN\$200 million in 2013.

22. Nexen and IGBC have demonstrated their commitment to the development of their shale gas resource in northeast British Columbia. Despite low gas prices, Nexen and IGBC are continuing to invest more capital than other asset holders in the region as they strive to optimize the design and development program to create long-term value and position themselves for future opportunities including the LNG market. In 2013, Nexen and IGBC will continue to prudently invest capital in the region and grow their production capabilities and understanding, leveraging their industry-leading technical and operational teams and execution expertise.

23. Nexen and IGBC's diversified portfolio of shale gas assets in northeast British Columbia allows them to address a key project risk of production deliverability inherent in any LNG project through a prudent approach to developing secured assets to fulfill long-term supply commitments.

24. Nexen retained DeGolyer and MacNaughton ("D&M") to independently evaluate Nexen and IGBC's northeast British Columbia shale gas properties. D&M is based in Houston, Texas and has significant experience in the evaluation of shale gas reserves and resources in the United States and in Canada. D&M's reports on the Nexen and IGBC's contingent and prospective resources are attached as **Appendix 1 and 2**.

25. D&M's evaluation of Nexen and IGBC's northeast British Columbia resources in 2010 estimated that their lands in the Horn River, Cordova and Liard basins hold between 9 to 38 Tcf of recoverable contingent and prospective resources, as shown in **Table 2** below.

**Table 2: Project Owners' Risked Contingent and Prospective Resource**

Project Owners Gas Supply	Available through Licence Term	
	Low	High
<b>Horn River Contingent Resource<sup>7</sup></b>	74 10 <sup>9</sup> m <sup>3</sup> 2,627 Bcf	280 10 <sup>9</sup> m <sup>3</sup> 9,893 Bcf
<b>Cordova Contingent Resource<sup>8</sup></b>	38 10 <sup>9</sup> m <sup>3</sup> 1,330 Bcf	143 10 <sup>9</sup> m <sup>3</sup> 5,057 Bcf
<b>Liard Prospective Resource<sup>9</sup></b>	150 10 <sup>9</sup> m <sup>3</sup> 5,330 Bcf	662 10 <sup>9</sup> m <sup>3</sup> 23,363 Bcf
<b>Contingent and Prospective Resource</b>	262 10 <sup>9</sup> m <sup>3</sup> 9,287 Bcf	1085 10 <sup>9</sup> m <sup>3</sup> 38,313 Bcf

26. Since 2010 there has been development activity on a portion of the lands in the Horn River, which has converted a portion of these contingent resources into proved and probable reserves. For these developed lands (to December 31, 2012) there have been sales of 43 Bcf in addition to the remaining proved plus probable reserves bookings.

27. Proprietary reserves production Nexen and IGBC's Horn River basin holdings began in April 2008. At the end of 2012, the production from this area increased to 130 million cubic feet per day ("mmcf/d"). Currently, Nexen and IGBC have two facilities (Tsea and Etsho) with a capacity of 175 mmcf/d (sales gas) that compress and dehydrate the gas. These facilities can be expanded up to 380 mmcf/d (sales gas). This gas is then delivered to third party gathering and processing facilities.

<sup>7</sup> Appendix 1, Adobe Page 30, Table 2 of "Report as of September 30, 2010 on the Contingent Resources attributable to various accumulations in the Horn River Basin – Shale Gas for Nexen Inc. in British Columbia Canada"

<sup>8</sup> Appendix 1, Adobe Page 29, Table 1 of "Report as of September 30, 2010 on the Contingent Resources attributable to various accumulations in the Horn River Basin – Shale Gas for Nexen Inc. in British Columbia Canada"

<sup>9</sup> Appendix 2, Adobe Page 26, Arithmetic Summation Table 1 of "Report as of September 30, 2010 on the Prospective Resources attributable to various prospects for Nexen Inc. in the Horn River Basin – Shale Gas Northern and Southern Liard Areas for British Columbia Canada"

28. To date, proved and probable reserves have only been booked for the area under development in the Horn River which corresponds with the level of development activity at this time. The Horn River December 31, 2012 reserve booking for Total Proved plus Probable for the joint venture working interest lands is 1.1 Bcf.<sup>10</sup> These booked reserves represent a small portion of the acreage and as drilling continues it is expected to prove up additional reserves.

29. D&M have evaluated the Horn River reserves yearly since 2011. D&M's evaluation agrees closely with Nexen and IGBC's evaluation of reserves.

**(ii) Third Party Sources of Gas Supply**

30. Supply of natural gas will be primarily sourced from the Western Canadian Sedimentary Basin ("WCSB") through a combination of proprietary natural gas holdings in northeast British Columbia and third party gas, which may include, but is not limited to, purchases at market hubs, gas supply arrangements and upstream joint ventures. Thus new markets for Western Canadian gas provided by the Aurora LNG project could provide opportunities for producers in the entire gas market.

31. It is intended that the LNG Terminal will be interconnected to Western Canadian market hubs through a network of new and existing pipeline systems. Through the integrated nature of the North American gas market and pipeline infrastructure, Nexen and IGBC will have the flexibility to supplement proprietary resources with third party sources.

**(b) Supply and Demand Forecast**

32. The Applicant retained Ziff Energy, a Division of HSB Solomon Associates LLC ("Ziff Energy") to provide:

- a description of gas supplies, including Canadian gas supply, expected to be available to the Canadian market (including underlying assumptions) over the requested Licence Term; and
- a description of expected gas requirements (demand) for Canada (including underlying assumptions) over the requested Licence Term.

33. Ziff Energy's report, entitled *Long Term Natural Gas Supply and Demand Forecast to 2050* provides a quantitative forecast of North American, Canadian, and WCSB supply and demand to 2050 and is attached as **Appendix 3 - Supply and Demand Forecast**.

34. Ziff Energy has concluded that the export of gas proposed by the Applicant will not cause Canadians any difficulty in meeting their natural gas requirements at fair market prices over the forecast period. The other main conclusions of the Supply and Demand Forecast concerning demand, supply, and market dynamics during the forecast period include:

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<sup>10</sup> These estimates have been prepared in accordance with the regulatory requirements of *National Instrument 51-101 – Standards of Disclosure for Oil and Gas Activities* and the Canadian Oil and Gas Evaluators Handbook.

- North American and Western Canadian gas resources are robust and continue to grow with the development of horizontal drilling and multi-stage fracture technologies;
- North American and Western Canadian gas supply is not constrained to meet projected base demand and incremental demand from the Aurora LNG project over the forecast period;
- there is an abundance of low cost natural gas resource available in North American and Canadian shale and unconventional gas plays;
- Western Canada has productive natural gas potential far in excess of projected demand over the forecast period, having regard to trends in the identification of gas resources, particularly unconventional gas, and in the development of cost-competitive production from those resources as a result of technological advances;
- Western Canada has potential natural gas supply in excess of projected demand over the forecast period;
- Canadian gas supply is expected to grow to 24 Bcf/d (25 PJ/d) in 2050 from 13 Bcf/d (14 PJ/d) in 2012, as new gas supplies more than offset declines of higher cost conventional gas. In 2012, Western Canada was the source of 98% of Canadian gas supply;
- Western Canadian natural gas is facing competition and significant displacement in traditional markets, including in eastern Canada, from low cost U.S. Lower 48 gas;
- the North American market is highly liquid, open, and efficient;
- despite declining Western Canadian gas production since 2001, Canadian gas markets have been adequately supplied and this is forecast to continue; these markets are a component of the integrated North American market;
- North American gas demand growth will be driven primarily by gas-fired electrical generation, Canadian oil sands gas demand, and LNG export liquefaction;
- Canadian gas demand growth is expected to be driven principally by a switch away from coal-fired power generation, gas for growing oil sands production, and LNG liquefaction;
- Canadian gas demand is expected to increase at an average of 2.7% per year over the forecast period and will comprise a larger component of North American demand, increasing market share to 19% in 2050 from 11% in 2013;
- the market impact from the proposed Aurora LNG project will be muted by the abundance of low cost gas resource available in North America and Western Canada; and

- natural gas markets will continue to function over the forecast period with natural gas buyers and sellers establishing fair market prices based on supply and demand fundamentals.

35. The Applicant also asked Ziff Energy to prepare a Canadian demand sensitivity analysis and discuss its impact on the conclusions made in the Supply and Demand Forecast. This analysis is provided in the Supply and Demand Forecast (Section 9.2). Ziff Energy concluded that a 20 percent increase in gas demand in 2050 would not change the overall conclusions of the Supply and Demand Forecast.

#### **IV. THE IMPLICATIONS OF THE PROPOSED EXPORT VOLUMES ON THE ABILITY OF CANADIANS TO MEET THEIR GAS REQUIREMENTS**

36. The Applicant retained Mr. Roland Priddle to describe the implications of the proposed export volumes on the ability of Canadians to meet their gas requirements and to evaluate whether this gas is surplus to reasonably foreseeable Canadian requirements. The Applicant also asked Mr. Priddle to include a sensitivity analysis in his report. Mr. Priddle's report, entitled *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* is attached as **Appendix 4 – Impact Description and Surplus Evaluation**.

37. Mr. Priddle's main conclusions are:

- there has been a step change in the economics of supply as a result of the shale revolution. Price signals are working and the long-term policy concern of industry and governments lies in the adequacy of markets rather than sufficiency of supply;
- it is not anticipated that the proposed exports will have implications for policy, regulation or for the commercial structures which underpin gas market functioning;
- market functioning is confirmed by data which reflect a price-transparent, highly liquid, strongly competitive commodity market featuring a large number of buyers and sellers and service-providers of all kinds, a huge volume of paper and physical transactions, and with no evidence of dominant positions and resulting market power being present in its unregulated component;
- Canadians will be able to adequately meet their gas requirements in quantitative terms at prices prevailing at any one time in the markets that serve their needs. These prices will derive from normal market functioning, will not be significantly differentiated geographically or sectorally beyond transportation variances and the market will continue to provide supply options for most Canadian users, options which might be enhanced over time as the overall market grows;
- given the very large continental resource base, trends in gas discovery that are favourable and in gas supply that lag the potential of the resource, partly because

present low prices prevent its economic exploitation, and the low incremental cost of adding production to replace exported LNG, reasonably foreseeable Canadian demand can be accommodated together with the proposed exports;

- the quantity of gas to be exported by the Applicant does not exceed the surplus remaining after due allowance has been made for reasonably foreseeable requirements for use in Canada having regard to the trends in the discovery of gas in Canada; and
- there are no foreseeable plausible sensitivities that would impair confidence in the impact description or the surplus evaluation.

## V. CONCLUSION AND RELIEF REQUESTED

38. This Application meets the Surplus Criterion. The Board can conclude, on the basis of the filed evidence, that the requested export Term Quantity 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.

39. The Applicant respectfully requests:

- (a) **Term:** The term of the Licence shall be 25 years commencing on the date of first export of LNG under the Licence;
- (b) **Term Quantity:** The quantity of LNG that may be exported over the term of the Licence, shall not exceed 640 MMT (natural gas equivalent of approximately 30,500 Bcf or 860 e<sup>9</sup>m<sup>3</sup>);
- (c) **Annual Quantity:** Subject to the Annual Tolerance, the quantity of LNG that may be exported in any consecutive 12-month period shall not exceed 24 MMT (natural gas equivalent of approximately 1140 Bcf or 32 e<sup>9</sup>m<sup>3</sup>);
- (d) **Annual Tolerance:** The quantity of LNG that may be exported in any consecutive 12-month period may exceed the maximum Annual Quantity by 15 percent in order to allow for operational and design optimization, variability in gas specification, and operating and maintenance variables;
- (e) **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 vicinity of Prince Rupert, British Columbia, Canada;
- (f) **Early Expiration Date:** Unless otherwise authorized by the Board, the term of the Licence shall end 10 years after the date of Governor-in-Council approval of the issuance of the Licence, if the export of LNG has not commenced on or before that date;

- (g) Any further terms as may be requested and as the Board may consider appropriate in the circumstances; and
- (h) Certain exemptions as described in this Application.

**ALL OF WHICH IS RESPECTFULLY SUBMITTED** this 29th day of November 2013.

AURORA LIQUEFIED NATURAL GAS LTD.  
by its counsel, Dentons Canada LLP

Per   
Richard A. Neufeld, Q.C.

Communications with respect to this application should be directed to:

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## LIST OF APPENDICIES

**Appendix 1:** Degolyer and MacNaughton - *Report as of September 30, 2010 on the Contingent Resources attributable to various accumulations in the Horn River Basin – Shale Gas for Nexen Inc. in British Columbia Canada*

**Appendix 2:** Degolyer and MacNaughton - *Report as of September 30, 2010 on the Prospective Resources attributable to various prospects for Nexen Inc. in the Horn River Basin – Shale Gas Northern and Southern Liard Areas for British Columbia Canada*

**Appendix 3:** Ziff Energy - *Long Term Natural Gas Supply and Demand Forecast to 2050*

**Appendix 4:** 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*