National Energy Board | Office national de l'énergie

LETTER DECISION

File OF-EI-Gas-GL-A777-2013-01 01
1 May 2014

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Dear Ms. Young and Mr. Neufeld:

Aurora Liquefied Natural Gas Ltd. (Aurora LNG)
29 November 2013 Application for a Licence to Export Liquefied Natural Gas pursuant to Section 117 of the *National Energy Board Act* (NEB Act)
National Energy Board (Board) Reasons for Decision

Recent developments in gas production technology have resulted in a significant increase in the Canadian gas resource base and North American gas supply. One of the major impacts of this increase is lower demand for Canadian gas in traditional gas markets in the United States and eastern Canada. As a result, the Canadian gas industry is seeking to develop access to overseas gas markets.

On 29 November 2013, Aurora LNG applied to the Board pursuant to section 117 of the NEB Act for a Licence to Export Liquefied Natural Gas (Licence) authorizing the export of liquefied natural gas (Application). Aurora LNG seeks a Licence duration of 25 years, starting on the date of first export with an annual volume of 24 million tonnes[1], which corresponds to a natural gas equivalent of 3.11 billion cubic feet per day[2], and a maximum quantity of 849.82 billion cubic metres (m^3) over the term of the Licence[3].

[1] Applied-for annual quantity not including tolerance
[2] As calculated by the Board from Aurora LNG's applied for export volume of 1,134 Billion cubic feet (Bcf) divided by 365 days
[3] Aurora LNG, in their follow-up response to Information Request No. 1 dated 14 March 2014, requested an annual quantity of 1,134.2 Bcf. The Board calculated the maximum term quantity of 849.82 $10^9 m^3$ using a conversion factor of 35.301 cubic feet per cubic metre over the 25 year term, taking into account ramp-up volumes at the start of the term and by adding the tolerance.

The export point would be located in the vicinity of Prince Rupert, British Columbia at the outlet of the loading arm of a proposed natural gas liquefaction terminal.

Board Decision

We have decided to issue a Licence to Aurora LNG, subject to the approval of the Governor in Council, to export natural gas with the terms and conditions described in Appendix I to this letter. Our role, under s. 118 of the NEB Act, is to assess whether the natural gas proposed 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 trends in the discovery of gas in Canada (Surplus Criterion).

In fulfilling this mandate, we recognize that Canadian natural gas requirements are met within a North American integrated market. Depending on regional characteristics, exports and imports contribute to either gas supply or gas demand. It is in this context that we must consider whether the Surplus Criterion in the NEB Act is satisfied.

We have determined that the quantity of gas proposed to be exported by Aurora LNG is surplus to Canadian needs. The Board is satisfied that the gas resource base in Canada, as well as North America, is large and can accommodate reasonably foreseeable Canadian demand, the natural gas exports proposed in this Application, and a plausible potential increase in demand.

We note that the evidence in this Application is generally consistent with the Board's own market monitoring. Recent studies of natural gas resources uncovered significant amounts in the Western Canada Sedimentary Basin and in the United States. The North American gas market is a mature marketplace characterized by a large number of buyers and sellers, an extensive and growing pipeline and storage network and a sophisticated commercial structure. Since deregulation of Canadian gas markets in 1985, gas markets in North America have functioned efficiently and there is no evidence to suggest that they will not continue to do so in the future.

Natural Gas Export Regulation

The Board's regulation of natural gas exports is governed by a statutory framework that includes the following three components:

- that all natural gas exports must be authorized by an order or licence[4];
- that the Board must satisfy itself that the gas to be exported by licence is surplus to Canadian requirements[5]; and
- that all exports are reported[6].

[4] Section 116 of the NEB Act
[5] Section 118 of the NEB Act
[6] Section 4 of the *National Energy Board Export and Import Reporting Regulations*

A mandatory hearing for gas export licences is no longer required by the NEB Act. For this Application, the Board decided to utilize a written process providing a Notice of Application by the applicant and a Comment Period for impacted persons.

Summary of the Notice, Comment Process and Submissions

On 9 January 2014, the Board directed Aurora LNG to publish a Notice of Application and Comment Period in the *Globe and Mail* and *La Presse* and to serve the Notice of Application and Comment Period on specified persons and agencies. The Notice of Application and Comment Period requested that any impacted person who wished to file submissions on the merits of the Application do so by 25 February 2014. The Board received no submissions from any parties.

The Board issued one Information Request (IR) to Aurora LNG on 13 February 2014. Aurora LNG filed its response to the IR on 5 March 2014, with further information filed on 14 March 2014.

Surplus Determination

Aurora LNG submitted that the quantity of gas it seeks to export does not exceed the surplus as required by the Surplus Criterion. In support of this submission, Aurora LNG submitted the following studies: (1) *Long Term Natural Gas Supply and Demand Forecast to 2050* prepared by Ziff Energy – A Division of HSB Solomon Associates Canada Ltd. (Ziff), (2) *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 Mr. Roland Priddle (Mr. Priddle) and (3) *Report as of September 30, 2010 on the Prospective Resources attributable to Various Prospects for Nexen, Inc. in the Horn River Basin – Shale Gas for the Northern and Southern Liard Areas, British Columbia Canada* prepared by Degolyer and MacNaughton.

Ziff submitted that the North American and Western Canadian gas resource bases are robust and continue to grow with the development of horizontal drilling and multi-stage fracture technologies and there is an abundance of low cost natural gas available in North American and Canadian tight and shale gas plays. Ziff expects natural gas markets in North America to continue to function in a rational manner during the forecast period and continue to provide appropriate market signals for development of resources to meet Canadian domestic and export demand.

Ziff and Mr. Priddle submitted that the North American gas market is highly liquid, open, and efficient. Ziff and Mr. Priddle 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.

Mr. Priddle also observed that Canadian energy and gas markets have been functioning satisfactorily for more than 25 years and are now fully integrated with those of the United States where similar market functioning has been confirmed many times. Mr. Priddle's Evaluation of Surplus concluded that the export volume proposed by the applicant meets the Surplus Criterion, supported by the fact that Canadian gas requirements are met within an integrated North American market and the gas resource base is large and can accommodate reasonably foreseeable Canadian demand as well as the LNG export proposed by the applicant.

Ziff also provided a Canadian demand sensitivity analysis (additional Canadian demand) and concluded that additional demand would be met by a combination of increased Canadian natural gas production and increased imports from the Lower-48 states from a well-functioning North American market.

Aurora LNG Ltd. also submitted reports, as of September 30, 2010 on the contingent and prospective petroleum resources attributable to various prospects for Nexen, Inc. in the Northern and Southern prospects of the Horn River Basin in British Columbia prepared by DeGolyer and MacNaughton. These reports, along with the Ziff evidence, provide details on the Canadian resource base.

Views of the Board

The Board is satisfied that the gas resource base in Canada, as well as North America, is large and can accommodate reasonably foreseeable Canadian demand, the LNG exports proposed by this Application, and a plausible potential increase in demand. The Board agrees with Ziff and Mr. Priddle that the North American gas market is highly liquid, open, efficient, integrated, and responsive to changes in supply and demand. The Board further accepts Ziff's analysis of Canadian demand and concludes that given the size of Canadian natural gas resources and the integrated and well-functioning nature of the North American gas market, Canadian gas requirements will be met.

The Board acknowledges that production forecasts are typically based on assumptions which carry some uncertainties. In this case, the Board's conclusion on surplus is not dependent on whether specific gas resources, as opposed to others, will in fact contribute to supply.

The Board notes that the evidence in this Application is generally consistent with the Board's own market monitoring. Since deregulation of Canadian gas markets in 1985, gas markets in North America have functioned efficiently and there is no evidence to suggest that they will not continue to do so in the future.

Based on all of the foregoing, the Board is satisfied that the quantity of gas proposed to be exported by Aurora LNG does not exceed the surplus remaining after due allowance has been made for the reasonably foreseeable requirements for use in Canada, having regard to the trends in the discovery of gas in Canada.

Relief Requested

Relief from Filing Requirements

Aurora LNG requests relief from the information requirements for gas export licence applications set out in section 12 (including Schedules I and II) of the *National Energy Board Act Part VI (Oil and Gas) Regulations* (Oil and Gas Regulations), except where those requirements are addressed elsewhere in its Application.

The Board is in the process of updating the Oil and Gas Regulations to align with changes to the NEB Act.

> ***Views of the Board***
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> The Board notes that it may exempt applicants for gas export licences from the filing requirements contained in section 12 of the Oil and Gas Regulations. In its Interim Memorandum of Guidance Concerning Oil and Gas Export Applications and Gas Import Applications under Part VI of the NEB 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). The Board further recognizes that not all of the other filing requirements contained in section 12 of the Oil and Gas Regulations are relevant to its assessment of this Application. Therefore, the Board exempts Aurora LNG from the filing requirements contained in section 12 of the Oil and Gas Regulations that were not included in the Application.
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> As stated previously, the Board focused its assessment of the Application on the Surplus Criterion contained in section 118 of the NEB Act. The requirements that are needed for the Board's assessment are identified in Guide Q of the Filing Manual[7]. It is the Board's view that the information included in Aurora LNG's Application met the requirements outlined in Guide Q.

Additional Licence Terms and Conditions

Aurora LNG requested a 15 per cent annual tolerance to the amount of gas that may be exported under the Licence in any 12-month period.

Aurora LNG also requested a sunset clause where, unless otherwise authorized by the Board, the Licence will expire ten years from the date of issuance of the Licence if exports have not commenced on or before that date.

Aurora LNG further requested that the point of export of LNG from Canada will be at the outlet of the loading arm of a proposed natural gas liquefaction terminal to be located in the vicinity of Prince Rupert, British Columbia, Canada.

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[7] Guide Q of the Filing Manual: http://www.neb-one.gc.ca/clf-nsi/rpblctn/ctsndrgltn/flngmnl/flngmnnsrt2013_03-eng.pdf

Views of the Board

The Board accepts Aurora LNG's request for a 15 per cent annual tolerance. The maximum term quantity permitted under the Licence is inclusive of the annual tolerance amount.

The Board accepts Aurora LNG's request for a ten year sunset clause, from the date of Governor-in-Council approval of issuance of the Licence, as reasonable. It has generally been Board practice in issuing a gas export licence to set an initial period during which, if the export of gas commences, the licence becomes effective for the full term approved by the Board. This condition in the licence is referred to as a sunset clause because the licence would expire if the export did not commence within the specified timeframe.

The Board accepts Aurora LNG's request that the point of export of LNG from Canada be at the outlet of the loading arm of a proposed natural gas liquefaction terminal to be located in the vicinity of Prince Rupert, British Columbia.

R.R. George
Presiding Member

P.H. Davies
Member

J. Gauthier
Member

May 2014
Calgary, Alberta

Appendix I

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

General

1. Aurora Liquefied Natural Gas Ltd. (Aurora LNG) shall comply with all of the terms and conditions contained in this licence unless the Board otherwise directs.

Licence Term, Conditions and Point of Export

2. Subject to Condition 3, the term of this licence shall commence on the date of first export from the liquefaction terminal referred to in Aurora LNG's application dated 29 November 2013, which is to be located in the vicinity of Prince Rupert, British Columbia, Canada (the Liquefaction Terminal) and shall continue for a period of 25 years thereafter.

3. This Licence shall expire 10 years from the date of Governor-in-Council approval of its issuance, unless exports from the Liquefaction Terminal have commenced on or before that date, or the Board otherwise directs.

4. The quantity of natural gas that can be exported under the authority of this licence is:

    a. Maximum annual quantity that may be exported in any 12-month period, including the 15 per cent tolerance, may not exceed 36,949,000 10^3m^3;

    b. Maximum term quantity may not exceed 849,819,000 10^3m^3.

5. Natural gas will be exported at a point at the outlet of the loading arm of the Liquefaction Terminal.