



## LETTER DECISION

File OF-EI-Gas-GL-O114-2014-01 01  
27 July 2015

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Dear Mr. Speer and Mr. Miller:

**Orca LNG Ltd. Application, dated 4 September 2014, for a Licence to Export Gas  
as Liquefied Natural Gas  
National Energy Board Reasons for Decision**

On 4 September 2014, Orca LNG Ltd. (Orca LNG) applied to the National Energy Board (NEB or Board) pursuant to section 117 of the *National Energy Board Act* (NEB Act) for a licence (Licence) to export gas (Application), in the form of liquefied natural gas (LNG). Orca LNG seeks:

- a 25-year Licence, starting on the date of first export;
- including a 15% annual tolerance, a maximum annual export quantity of 38.06 billion cubic metres ( $10^9\text{m}^3$ ) or 1 344 billion cubic feet (Bcf)<sup>1</sup>;
- a maximum term quantity of  $901\ 10^9\text{m}^3$  (31 800 Bcf) over the term of the licence<sup>2</sup>;
- the point of export be the outlet of the loading arm of the proposed natural gas liquefaction terminal to be located in the vicinity of Prince Rupert, British Columbia, Canada;
- an early expiration clause where, unless otherwise authorized by the Board, the Licence will expire ten years from the date of Governor in Council approval of the issuance of the Licence if exports have not commenced on or before that date.

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<sup>1</sup> Applied-for quantity of  $33\ 10^9\text{m}^3$  (1 169 Bcf) plus the 15 per cent annual tolerance.

<sup>2</sup> Applied-for quantity is adjusted for ramp-up schedule and includes 15 per cent annual tolerance.

## **Summary of Public Notice, Comment Period, and Information Requests**

On 14 October 2014, Orca LNG published a Notice of Application and Comment Period (Notice) for impacted persons in both the *Globe and Mail* and *La Presse*. The Notice requested that any impacted person who wished to file submissions on the merits of the Application do so by 13 November 2014 and that Orca LNG respond by 24 November 2014. The Board received no submissions from the public.

The Board issued Information Request No. 1.0 to Orca LNG on 8 May 2015. Orca LNG filed its response on 22 May 2015.

## **Surplus Determination**

Orca LNG submitted that, as required by the Surplus Criterion<sup>3</sup>, the quantity of gas it seeks to export does not exceed the surplus remaining after due allowance has been made for the reasonably foreseeable requirements for use in Canada, having regards to the trends in the discovery of gas in Canada. In support of this submission, Orca LNG submitted the following studies: (1) *Long Term Natural Gas Supply and Demand Forecast to 2050 for Orca LNG LTD* prepared by Ziff Energy – A Division of HSB Solomon Associates Canada Ltd. (Ziff) and (2) *A Description of the implications on the ability of Canadians to meet their natural gas requirements and an Assessment of whether this gas is surplus to reasonably foreseeable Canadian requirements* prepared by Mr. Roland Priddle (Mr. Priddle).

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. Ziff noted there is an abundance of low-cost natural gas resource available in North American and Canadian shale gas plays and unconventional gas plays. Ziff expects natural gas markets in North America to continue to function in a rational manner during the forecast period and to provide appropriate market signals for the development of resources to meet Canadian domestic and export demand.

Ziff stated that Canadian gas markets have been adequately supplied and it forecasts the trend will continue as these markets are a component of the integrated North American gas market. Mr. Priddle and Ziff submitted that the North American gas market is highly liquid, open, and efficient. Ziff also provided a Canadian demand sensitivity analysis considering a 20% increase in Canadian demand and found that it would not change the overall conclusions of its supply/demand forecast. 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.

When considering the level of LNG exports from Canada in its supply/demand forecast, Ziff included nearly all NEB approved exports to a maximum of 21.2 Bcf/d. Ziff considered the approach as a stress test for the Canadian natural gas market but also stated that it did not consider the current level of NEB-approved LNG export volumes to be likely. Ziff noted that economics and market differentials will ultimately determine if increased liquefaction investment is warranted. Ziff also noted other limiting factors such as significant capital costs, consolidation within Canadian LNG projects, and the existence of global competition.

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<sup>3</sup> Section 118 of the NEB Act.

Orca LNG submitted evidence that considered mainly economic factors as likely to limit Canadian LNG export volumes. These included: distance to gas reserves, availability of existing infrastructure, distance to markets, construction and labour costs, geopolitical factors, financing, and timing. Orca LNG also submitted that consideration ought to be given to other factors such as greenfield vs brownfield sites, commercial risk such as market volume risk and market price risk, technical risk, and completion risk that may also potentially limit LNG exports from Canada.

### ***Views of the Board***

We have decided to issue a Licence to Orca 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 section 118 of the NEB Act, is to assess whether the 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 in the context of free trade within a North American energy market. Depending on regional characteristics, exports and imports contribute to either gas supply or gas demand. It is in this context that we consider whether the Surplus Criterion in the NEB Act is satisfied.

The Board is satisfied that the gas resource base in Canada, and the overall North American gas resource base, is large and can accommodate reasonably foreseeable Canadian demand, including the LNG exports proposed by the Applicant, 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 the Applicant's analysis of Canadian demand and, given the size of Canadian natural gas resources and the integrated and well-functioning nature of the North American gas market, concludes that Canadian gas requirements will be met.

The Board monitors Canada's natural gas supply and demand, including LNG developments. Monitoring assists the Board in identifying where markets may not be functioning properly or where the evolution of supply and demand casts doubt on the ability of Canadians to meet future energy requirements. The Board notes that the evidence in this Application is generally consistent with the Board's own market monitoring information. Recent studies of natural gas resources indicate that advances in drilling and hydraulic fracturing have resulted in greatly increased estimates of recoverable resources in the Western Canada Sedimentary Basin and in the United States. Furthermore, 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. The North American gas market is characterized by a large number of buyers and sellers, an extensive and growing pipeline and storage network, and a sophisticated commercial structure.

In aggregate, the LNG export licence applications submitted to the Board to date represent a significant volume of LNG exports from Canada. However, all of these LNG ventures are competing for a limited global market and face numerous development and construction challenges. The Board acknowledges Orca LNG's evidence which cites the factors that are likely to limit Canadian LNG export volumes including: global competition, distance to gas reserves, availability of existing infrastructure, distance to markets, construction and labour costs, geopolitical factors, financing, and timing. The Board will not predict which licences will be used or used to the full allowance and therefore, the Board evaluates each application on its own merit.

## **Relief Requested**

### **Relief from Filing Requirements**

Orca LNG requests relief from the information requirements for gas export licence applications set out in section 12 of the *National Energy Board Act Part VI (Oil and Gas) Regulations* (Oil and Gas Regulations) and in Guide Q of the Board's *Filing Manual*, except where those requirements are specifically addressed elsewhere in its Application.

### ***Views of the Board***

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 Orca LNG from the filing requirements contained in section 12 of the Oil and Gas Regulations that were not included in the Application.

Pertaining to Orca LNG's request for relief from the requirement outlined in Guide Q, It is the Board's view that the information included in Orca LNG's Application has met these requirements.



R. R. George  
Presiding Member



P.H. Davies  
Member



J. Gauthier  
Member

## Appendix I

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

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#### General

1. Orca LNG Ltd. (Orca LNG) shall comply with all of the terms and conditions contained in this licence unless the National Energy Board (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, 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 have commenced on or before that date, or the Board otherwise directs.
4. The quantity of 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  $38.06 \times 10^9 \text{ m}^3$ .
  - b. Maximum term quantity, including the 15 per cent tolerance, may not exceed  $901 \times 10^9 \text{ m}^3$ .
5. The gas will be exported at a point at the outlet of the loading arm of the liquefaction terminal referred to in Orca LNG's application dated 4 September 2014, which is to be located in the vicinity of Prince Rupert, British Columbia, Canada .