



LETTER DECISION

File OF-EI-Gas-GL-P759-2014-02 01
13 August 2015

Mr. Thomas Dawson,
EVP & COO
Pieridae Energy (Canada) Ltd.
1718 Argyle Street, Suite 730
Halifax, NS B3J 3N6
Facsimile: 902-492-5211

Dear Mr. Dawson:

**Pieridae Energy (Canada) Ltd.
24 October 2014 Application for a Licence to
Export Natural Gas and Import Natural Gas
National Energy Board Reasons for Decision**

On 24 October 2014, Pieridae Energy (Canada) Ltd. (Pieridae or Applicant) applied to the National Energy Board (NEB or Board) pursuant to section 117 of the *National Energy Board Act* (NEB Act) for a licence (Export Licence) to export natural gas in the form of liquefied natural gas (LNG) and a licence (Import Licence) to import natural gas (Application).

In respect of the Export Licence, Pieridae seeks:

- a 20 year Export Licence starting on the date of first export;
- a maximum annual export quantity of 16.675 billion cubic metres (10^9 m^3) or 587.65 billion cubic feet (bcf)¹;
- a maximum term export quantity of $333.5 \times 10^9 \text{ m}^3$ (11 753 Bcf) over the term of the Export Licence²;

.../2

¹ Applied-for annual export quantity of $14.5 \times 10^9 \text{ m}^3$ (511 Bcf) plus the 15 per cent annual tolerance.

² Applied-for term export quantity of $290 \times 10^9 \text{ m}^3$ (10 220 Bcf) plus the 15 per cent tolerance.

- the point of export to be the outlet of the loading arm of the natural gas liquefaction plant to be located in the vicinity of Goldboro, Nova Scotia, and highway and railway crossings along the international border between the province of New Brunswick and the state of Maine; and
- an early expiration clause where, unless otherwise authorized by the Board, the Export Licence will expire ten years from the date of Governor in Council approval of the issuance of the Export Licence if exports have not commenced on or before that date.

In respect of the Import Licence, Pieridae seeks:

- a 20 year Import Licence starting on the date of first import;
- a maximum annual import volume of $11.845 \times 10^9 \text{ m}^3$ or 419.75 billion cubic feet³;
- a maximum term import quantity of $236.9 \times 10^9 \text{ m}^3$ or 8 395 Bcf over the term of the Import Licence⁴;
- the point of import to be the interconnect between Maritimes and Northeast Canada pipeline and the Maritimes and Northeast U.S. pipeline along the Canadian-U.S. border between the province of New Brunswick and the state of Maine, near St. Stephen, New Brunswick; and
- an early expiration clause where, unless otherwise authorized by the Board, the Import Licence will expire ten years from the date of Governor in Council approval of the issuance of the Import Licence if imports have not commenced on or before that date.

Summary of the Public Notice, Comment Period and Information Requests

On 15 April 2015, Pieridae published a Notice of Application and Comment Period (Notice) for impacted persons in both the *Globe and Mail* and *La Presse*. On 16 April 2015, Pieridae also confirmed they served the Notice on specified persons and agencies. The Notice requested that any impacted person who wished to file submissions that are relevant to the Surplus Criterion in section 118⁵ of the NEB Act do so by 19 May 2015 and that Pieridae respond to any comments by 27 May 2015.

The Board received submissions from the Nova Scotia Department of Energy, the Maritimes Energy Association, and Heritage Gas Limited (Heritage Gas) (together the ‘Commentors’).

The Board issued Information Requests (IRs) to Pieridae on 9 March 2015 and on 28 April 2015. Pieridae filed its responses on 17 March 2015 and 20 May 2015, respectively.

The Board addressed Heritage Gas’s comments regarding the application assessment process on 11 June 2015. Pieridae did not respond to any of the submissions filed by the Commentors.

³ Applied-for annual import quantity of $10.3 \times 10^9 \text{ m}^3$ (365 Bcf) plus the 15 per cent annual tolerance.

⁴ Applied-for term import quantity of $206 \times 10^9 \text{ m}^3$ (7 300 Bcf) plus the 15 per cent tolerance.

⁵ Section 118 states: 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.

Surplus Determination

Pieridae submitted that, as required by the Surplus Criterion, 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. In support of this submission, Pieridae submitted the following studies: (1) *Long Term Natural Gas Supply and Demand Forecast to 2050* for Pieridae Energy (Canada) Ltd. prepared by Ziff Energy – A Division of HSB Solomon Associates Canada Ltd. (Ziff); and (2) *A Description of the Implications of Pieridae Energy's applied-for exports on the ability of Canadians to meet their natural gas requirements and an Assessment 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 that these developments have led to 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 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 this trend is forecast to continue as these markets are a component of the integrated North American market. 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 per cent increase in Canadian demand and found that it would not change the overall conclusions of its supply and demand forecast. Mr. Priddle observed that the marketplace will generally operate in such a way that Canadian requirements for natural gas will be met. Mr. Priddle and Ziff 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, Ziff included nearly all NEB approved exports to date, to a maximum of 18 Bcf per day in its analysis. 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, the existence of global competition, and the conservative nature of the market. Pieridae submitted that LNG projects are capital intensive and long-dated. Pieridae also submitted that LNG projects are demand driven rather than supply driven and buyers must consider whether project economics allow for competitive LNG prices, acceptable rates of return for gas resource owners and acceptable project completion risk.

Views of the Board

We have decided to issue an Export Licence to Pieridae, 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. In addition, we have decided to issue an Import Licence to Pieridae, subject to the approval of the Governor in Council, to import natural gas with the terms and conditions described in Appendix II 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. 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 natural gas supply or 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 natural gas resource base in Canada, and the overall North American natural 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 the evidence of Pieridae that the North American natural 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 natural 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, natural 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 natural 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 faced with a robust, but limited, global market and face numerous development and construction challenges. The Board acknowledges Pieridae's evidence which cites several factors that could limit Canadian LNG export volumes, including: significant capital costs; consolidation within Canadian LNG projects; global

competition; the conservative nature of the market; project completion risk; and the long-dated nature of the projects. 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.

Issues Raised During the Comment Period

On 20 May 2015, Mr. Murray Coolican, Deputy Minister of Energy, Nova Scotia Department of Energy filed a Letter of Comment supporting Pieridae's Application because its LNG project has the potential to underpin infrastructure development to enable large volumes of U.S. and Canadian gas to flow to Nova Scotia for both domestic and export markets. Mr. Coolican's letter also stated that Pieridae's proposed LNG project provides an opportunity for increased security of supply and liquidity in gas markets served by Maritimes and Northeast Pipeline (M&NP). Finally, Mr. Coolican's letter stated that Pieridae's proposed LNG project should serve to grow interest in exploration and development in offshore Nova Scotia.

On 19 May 2015, Mr. Ray Ritcey, on behalf of the Maritimes Energy Association, filed a Letter of Comment supporting Pieridae's Application. The letter stated that natural gas domestic use within the Maritimes is growing while local supply is projected to decline and so increased volumes of natural gas to the region may help improve gas prices and lower transportation tariffs. Mr. Ritcey acknowledged the value of responsible development and the creation of economic activity in the Maritimes and that investment in gas infrastructure in the Maritimes is essential. Mr. Ritcey's letter also stated that importing gas from the U.S. is crucial to development and potentially increases optionality to domestic and export customers.

On 19 May 2015, Heritage Gas filed a Letter of Comment which stated that M&NP is the only pipeline connecting the Maritimes with production basins in other parts of North America and that the Pieridae's plan to source and transport natural gas to the proposed facility will have an impact on capacity available on the M&NP system. Heritage Gas further stated that as a result of the decline in domestic offshore natural gas supplies, it is expected that Maritimes shippers will be required to source their natural gas supply needs from other North American production basins and that Pieridae's gas procurement plan may affect how and where natural gas flows into the Maritimes. Finally, Heritage Gas stated that depending on the Applicant's natural gas procurement plan, additional gas infrastructure development in Nova Scotia may be required which could impact the gas procurement of other natural gas users in the province, including Heritage Gas.

Views of the Board

The Board considers comments that are relevant to its consideration of the Surplus Criterion in section 118 of the NEB Act. The Board finds that the comments relating to infrastructure development, economic benefits, and the capacity available on M&NP are matters outside the scope of the Board's jurisdiction on natural gas export licence applications.

The Board is of the view that Canadian natural gas requirements are met in the context of free trade within an integrated North American natural gas market. Pieridae has

submitted evidence, supported by the Board's market monitoring, that the North American natural gas market is functioning effectively to match supply and demand, and it is expected to continue to do so in the future.

Relief Requested

Relief from Filing Requirements

Pieridae requested 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* (Part VI Regulations) that are not specifically addressed in the Application.

Views of the Board

The Board notes that it may exempt applicants for gas export and import licences from the filing requirements contained in sections 12 and 13 of the Part VI 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 to file the information contained in section 12(f) (export licence) or 13(e) (import licence) of the Part VI Regulations. The Board further recognizes that not all of the other filing requirements contained in sections 12 and 13 of the Part VI Regulations are relevant to its assessment of this Application. Therefore, the Board grants Pieridae's request to be exempted from the filing requirements contained in section 12 of the Part VI Regulations that were not included in the Application. Pursuant to section 20 of the NEB Act, the Board also exempts Pieridae from filing requirements contained in section 13 of the Part VI Regulations that were not included in the Application.

Agent on behalf of Affiliates and Third Parties

Pieridae requested permission to export LNG and import natural gas on its own behalf and as agent for third parties whom themselves hold title to the LNG or natural gas.

Views of the Board

Section 116 of the NEB Act prevents any person, except as otherwise authorized by the regulations, from exporting or importing gas except under and in accordance with a licence issued by the Board. In the Board's view, this section of the NEB Act does not require the holder of the export or import licences to also be the owner of the natural gas; therefore, the Board does not find it necessary to include a term on the Export and Import Licences permitting Pieridae to act as agent on behalf of third parties that hold title to the LNG or natural gas. The Board notes that Pieridae, acting in its capacity as an agent, would be exporting LNG and importing natural gas under its Export and Import Licences which requires it to report those exports and imports in accordance with the *National Energy Board Export and Import Reporting Regulations*



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 Natural Gas

General

1. Pieridae Energy (Canada) Ltd. (Pieridae) 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 Points 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 20 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 natural gas that can be exported under the authority of this licence is:
 - a. Maximum annual quantity that can be exported in any 12 month period, including the 15 per cent tolerance, may not exceed $16.675 \times 10^9 \text{ m}^3$; and
 - b. Maximum term quantity, including the 15 per cent tolerance, may not exceed $333.5 \times 10^9 \text{ m}^3$.
5. Natural gas will be exported from points that include:
 - a. the outlet of the loading arm of the natural gas liquefaction plant referred to in Pieridae's Application dated 24 October 2014, to be located near Goldboro, Nova Scotia; and
 - b. highway and railway crossings along the international border between the province of New Brunswick and the state of Maine.

Appendix II

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

General

1. Pieridae Energy (Canada) Ltd. 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 Import

2. Subject to Condition 3, the term of this licence shall commence on the date of first import and shall continue for a period of 20 years thereafter.
3. This Licence shall expire 10 years from the date of Governor in Council approval of its issuance, unless imports of natural gas have commenced on or before that date, or the Board otherwise directs.
4. The quantity of natural gas that can be imported under the authority of this licence is:
 - a. Maximum annual quantity that can be imported in any 12 month period, including the 15 per cent tolerance, may not exceed $11.845 \times 10^9 \text{ m}^3$; and
 - b. Maximum term quantity, including the 15 per cent tolerance, may not exceed $236.9 \times 10^9 \text{ m}^3$.
5. Natural gas will be imported at the point where the Maritimes and Northeast Pipeline crosses the Canada-U.S. border near St. Stephen, New Brunswick.