



LETTER DECISION

File OF-EI-Gas-GL-P739-2016-01 01
12 January 2017

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Dear Mr. Smith, Ms. Prentice, Mr. Carscallen and Mr. Johnson:

**Petrogas Energy Corp. Application dated 21 March 2016 for a Licence to Export
Propane pursuant to Section 117 of the *National Energy Board Act*
National Energy Board Reasons for Decision**

On 21 March 2016, Petrogas Energy Corp. (Petrogas 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 (Licence) to export propane (Application). On 29 June 2016, Petrogas filed supplemental information in support of its Application. Petrogas seeks:

- a 25-year licence, starting on the date of first export;
- including a 15 per cent tolerance, a maximum annual export quantity of 6 206 160 cubic metres (m³) (39 036 750 bbl);¹
- a maximum term quantity of 155 154 000 m³ (975,981,750 barrels)² over the term of the licence;³ and

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¹ Response to NEB IR1.1(a)&(b) ([A78761](#)) Applied-for quantity of 5,396,661 m³ (33,944,998 barrels) plus the 15 per cent annual tolerance.

² Applied-for quantity of 155 154 000 m³ (975,981,750 barrels).

³ Applied-for quantity plus the annual tolerance multiplied by the 25-year licence term.

- the point of export shall include any and all land and marine points on the international boundary of Canada.

Summary of Public Notice, Comment Period and Information Requests

On 26 August 2016, Petrogas published a Notice of Application and Comment Period (Notice) for impacted persons in the *Globe and Mail* and on 27 August 2016 in *La Presse*. The Notice requested that any impacted person who wished to file submissions on the merits of the Application do so by 6 October 2016 and that Petrogas respond by 17 October 2016.

The Board received no submissions from impacted persons.

The Board issued Information Request No. 1 to Petrogas on 11 July 2016, and Petrogas filed its responses on 29 July 2016.

In Information Request No. 1(a) Petrogas provided precise geographical locations for the proposed points of exportation that it would use for the export of propane under this licence. The Applicant provided twelve points of export that it currently or has utilized in the past, as well as, eleven points of export that may be utilized in the future. The Applicant stated that it would intend to export from one or more of the foregoing points under the proposed licence as well as from any other such points as may be accessible during the licence term.

Surplus Determination

Petrogas submitted that, as required by the Surplus Criterion⁴, the quantity of propane 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 regard to the trends in the discovery of gas in Canada. In support of this submission, Petrogas submitted the following studies: (1) *Canadian Propane Supply and Demand through to 2050* – by Gas Processing Management Inc. (GPMi) (Appendix A), and (2) *Petrogas Energy Corp. Propane Export Licence Application: Implications and Surplus Assessment Report* by Mr. Roland Priddle (Mr. Priddle) (Appendix B).

GPMi submitted that advances in horizontal drilling and multi-stage fracturing technology have given rise to a sharp increase in natural gas, natural gas liquids (NGLs), and crude oil supply in North America. Western Canadian natural gas production is expected to increase to supply liquefied natural gas (LNG) exports beginning late in this decade. Similarly, propane availability is likely to increase as producers continue to target the rich gas plays.

GPMi stated that recoverable resources of propane are not typically estimated. Furthermore, it noted that if natural gas is not processed for NGL recovery then the NGL products do not exist. The NGL molecules are just gas molecules and are consumed as gas. Nevertheless, subject to those qualifications, a reasonable estimate of the amount of propane ultimately recoverable in North America can be extrapolated from information available from several sources⁵.

⁴ Section 118 of the NEB Act.

⁵ The data sources are listed in the *Canadian Propane Supply and Demand through to 2050* – by Gas Processing Management Inc. (GPMi), page 12 of 40

Mr. Priddle pointed out that Canadian and North American natural gas resources are very large and it is reasonable to assume that the amount of propane, preponderantly a product of gas processing, that could be available to market from those resources is also likely very large. GPMi noted that in theory, propane resources are simply a fraction of natural gas and crude oil resources. In practice, there is often little tangible evidence upon which to estimate the relevant fractions and therefore the determination of resource potential is often more a matter of judgment rather than analysis⁶. While recognizing the challenges regarding data about the Canadian propane industry, Mr. Priddle stated, it is concluded with GPMi that the North American propane market is not supply constrained nor will it be during the term in which Petrogas's proposed exports are made.

GPMi also provided projections of propane production that show Canadian propane production growing over the forecast period with growth dependent on LNG export projects coming on-stream. GPMi noted that most of the rapid growth of propane supply in the early years of the forecast comes from the ongoing development of liquids rich in the Marcellus, Utica and Eagle Ford areas of the U.S. Considered as a whole, it is clear that North America will continue to have a huge surplus of propane for the foreseeable future. GPMi stated that it does not foresee any plausible scenario where Canada would be unable to acquire adequate propane supply.

Mr. Priddle and GPMi noted that the North American market is generally efficient, transparent and liquid, and responds to changes in supply/demand through price mechanisms. Mr. Priddle (and also GPMi) mentioned several facts to support this view, most of them supported by findings from the NEB and the Competition Bureau's *Propane Market Review*⁷ (Review) published on 25 April 2014:

- Mr. Priddle stated that prices for Canadian bulk propane are formed by market forces at the Edmonton and Sarnia hubs, and U.S. prices at Conway, Kansas and Mt. Belvieu, Texas hubs.
- The major hubs have large low-cost underground storage capacity and provide the physical basis for commercial transactions. Propane is further transported from these hubs by pipelines and by rail tank cars to markets throughout North America.
- Prices at all these propane hubs are linked by transportation differentials with the prices at Mt. Belvieu and Conway. GPMi further stated that historical prices at the North American propane hubs are highly correlated.

Mr. Priddle concluded that there is competitive entry to the integrated Canadian and North American propane market, which provides easy price discovery, presents liquidity features, and efficiently balances supply and demand through the price mechanism. Mr. Priddle further noted that the physical volume of propane is smaller because most propane is produced as a by-product of gas processing. The smaller volume results in a less liquid market, and the degree of transparency provided by commercial, governmental, and regulatory activities is less than in respect of propane than for natural gas.

⁶ The data sources are listed in the *Canadian Propane Supply and Demand through to 2050* – by Gas Processing Management Inc. (GPMi), page 12 of 40

⁷ [Propane Market Review](#), NEB and Competition Bureau, 25 April 2014.

Mr. Priddle noted that propane prices will continue to be formed competitively by market forces balancing supply and demand within supportive policy and regulatory frameworks. Canadians will always be able to meet their propane requirements at market-determined prices.

Mr. Priddle submitted that the Review stated that there is sufficient propane production, storage and transportation infrastructure to meet the future needs of Canadians. The Review, he noted, also observed that congestion experienced at rack sites and other distribution points contributed to tight propane supply in the winter of 2014, likely as a result of both greater-than-usual demands placed on propane terminals and other transportation infrastructure, and disruptions related to weather conditions. Accordingly, the Board said, temporary price spikes and shortages are likely in the future. Mr. Priddle agrees with that statement because resolution of this situation would require investment in incremental storage, transportation and distribution facilities to service unpredictable weather-related demand peaks.

Mr. Priddle concluded that it is relevant to add that the export of the propane in this Application is unlikely to affect the potential for short term propane market disruptions in the Canadian and North American industry.

GPMi anticipates relatively steady growth of domestic propane demand in Canada over the forecast period. Natural gas and propane supply are relatively flat until LNG demand drives supply higher.

The rate of growth of Canadian propane demand in the GPMi outlook is a little more than one per cent per annum. GPMi's forecast shows propane demand in 2015 of 107 thousand barrels per day (kbpd) growing to 143 kbpd in 2050 (a total growth of 36 kbpd or approximately 34 per cent above 2015). GPMi also provided a sensitivity analysis considering an additional 20 per cent increase in demand growth. An additional 20% growth would be approximately 7 kbpd of additional propane demand or a total propane demand growth of approximately 40% above 2015 levels. GPMi noted that the additional demand growth is quite small in a North American context and could easily be accommodated by the combined supply response. In simple terms, a demand increase would lead to a price increase, which would lead to a supply response and a new equilibrium supply, demand and price point. In practice, the supply response would be a combination of increased domestic production, declining exports and increased imports. Further, GPMi believes that propane demand would have to roughly double the current forecast demand before there would be any material change to GPMi's conclusion that there will be a propane surplus over the outlook period.

Views of the Board

The Board has decided to issue a Licence to Petrogas, subject to the approval of the Governor in Council, to export propane with the terms and conditions described in Appendix I to this letter. The Board's role, under section 118 of the NEB Act, is to assess whether the gas proposed to be exported, in this case propane, 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 propane 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 a propane supply or propane demand. It is in this context that we consider whether the Surplus Criterion in the NEB Act is satisfied.

The Board acknowledges that propane markets could experience short-term disruptions for several reasons. As mentioned by GPMi, propane is produced as a by-product of natural gas processing and oil refining, which may leave propane producers unable to quickly respond to short-term changes in market demand and prices. In addition, propane demand is highly seasonal, which makes the market heavily reliant on inventories to cover higher demand requirements. This results in propane delivery infrastructure (including rail cars) being highly utilized during winter.

The Board shares Mr. Priddle's view that the North American propane market is not as large, liquid, or transparent as the North American natural gas market. However, the Board is aware that there is a market-oriented regulatory framework in both the U.S and Canada, which allow propane prices to be settled by market forces.

The Board agrees with GPMi and Mr. Priddle that the North American propane market is generally liquid, open, efficient, integrated and responsive to changes in supply and demand. However, the Board notes that the outlook for natural gas production linked to LNG exports is different now compared to when other companies filed their applications. Specifically, near-term exports of LNG from Canada are less likely.

The Board accepts that there is currently a surplus of propane in North America, with the majority of surplus propane in the U.S. exported to overseas markets, and the majority of surplus Canadian propane exported to the U.S. with small volumes delivered to international markets via the U.S.

The Board is concerned that Petrogas is applying to export a very large quantity of propane, close to the entire volume currently exported from Canada on an annual basis. The Board is of the view that the evidence on the record does not support issuance of a licence for a term longer than 10 years. Although the Board recognizes Petrogas' statement that actual use of the licence will be "market dependent", there exists an uncertainty about Canadian propane supply beyond ten years on account of natural gas supply, and therefore, propane supply, being heavily influenced by the uncertainty of West Coast LNG exports. This uncertainty makes it difficult for the Board to make a determination of surplus for the large quantity and the term requested by the Applicant.

The Board accepts the Applicant's analysis of current and forecast Canadian propane demand, given that current trends of a well-supplied Canadian propane market will persist for at least the short term. The Board concludes that Canadian propane requirements will be met in the interim, given what is expected to be a large propane resource, and given the integrated nature of the North American propane market.

The Board has decided to grant the Applicant only the 23 export points requested in Board Information Request No. 1 (a) and included in Appendix I of the letter decision.

The Board monitors Canada's NGL supply and demand, including propane and other NGL developments to ensure that supply-demand balances continue to support the conclusions of this decision. 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 current market monitoring.

Recent studies of natural gas resources and associated NGLs, including the Board's own study of the Montney formation in British Columbia⁸, indicate that advances in drilling and hydraulic fracturing have resulted in greatly increased estimates of recoverable resources in the Western Canadian Sedimentary Basin. The Board will continue to include resource estimates for NGLs, in future resource studies where feasible.

The North American propane market is characterized by a large number of buyers and sellers, an extensive and growing pipeline and storage network, with a related commercial structure, that although smaller in market size and less sophisticated than the natural gas market, is nevertheless an active, liquid and relatively efficient market.

Relief Requested

Relief from Filing Requirements

Petrogas requests relief from the information requirements for propane, butanes, or ethane export applications set out in section 20 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 20 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 propane, butanes or ethane export licences to file the information contained in section 20(e). The Board further recognizes that not all of the other filing requirements contained in section 20 of the Oil and Gas Regulations are relevant to its assessment of this Application. Therefore, the Board exempts Petrogas from the filing requirements contained in section 20 of the Oil and Gas Regulations that were not included in the Application.

⁸ [The Ultimate Potential for Unconventional Petroleum from the Montney Formation of British Columbia and Alberta - Energy Briefing Note, November 2013](#)

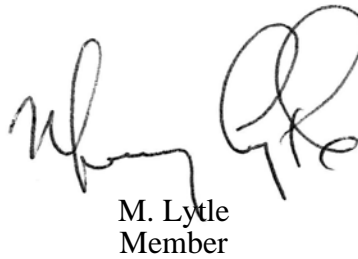
Pertaining to Petrogas's request for any further terms or relief the Board may consider appropriate in the circumstances, it is the Board's view that no further relief is necessary.



S. J. Kelly
Presiding Member



S. Parrish
Member



M. Lytle
Member

January 2017
Calgary, Alberta

Appendix I

Terms and Conditions of the Licence to be Issued for the Export of Propane

General

1. Petrogas 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, and shall continue for a period of 10 years thereafter.
3. The quantity of propane 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% tolerance, may not exceed 6 206 160 m³.
 - b. Maximum term quantity, including the 15% tolerance, may not exceed 62 061 600 m³.
4. Export points are limited to the following: Surrey, British Columbia; Huntingdon, British Columbia; Kingsgate, British Columbia; Carway, Alberta; Coutts, Alberta; North Portal, Saskatchewan; Emerson, Manitoba; Sarnia, Ontario; Windsor, Ontario; Fort Erie, Ontario; Fort Frances, Ontario; La Colle, Quebec; Aldergrove, British Columbia; Osoyoos, British Columbia; Ridley Island, British Columbia; Boissevain, Manitoba; Sault Ste. Marie, Ontario; Lansdowne, Ontario; Cornwall, Ontario; Philipsburg, Quebec; Woodstock, New Brunswick; Armstrong, Quebec; St. Stephen, New Brunswick.