Canada Energy Regulator
Régie de l'énergie du Canada

Suite 210
517 Tenth Avenue SW
Calgary, Alberta
T2R 0A8

517, Dixième Avenue S.-O.
bureau 210
Calgary (Alberta)
T2R 0A8

LETTER DECISION

File OF-EI-Gas-GL-C577-2019-01 01
4 December 2019

Mr. Keith B. Bergner
Lawson Lundell LLP
500 Fifth Avenue SW
Calgary, AB T2P 0L7
Email: kbergner@lawsonlundell.com

Ms. Andrea Serjak
Chevron Canada Resources
1600 Cathedral Place,
925 West Georgia Street
Vancouver, BC V6C 3L2
Email: aserjak@chevron.com

Dear Mr. Bergner, and Ms. Serhak:

Chevron Canada Limited (Chevron) Application for a 40-year Licence to Export Natural Gas as Liquefied Natural Gas (LNG)

On 1 April 2019, Chevron applied to the National Energy Board (NEB) pursuant to section 117 of the *National Energy Board Act* (NEB Act) for a licence to export natural gas (Application) in the form of liquefied natural gas.

Chevron Seeks:

- a 40-year Licence, starting on the date of first export;
- including a 15% annual tolerance, a maximum annual export quantity of 28.23 billion cubic metres (10^9 m^3) or 996.93 billion cubic feet (Bcf);
- a maximum term quantity of 982 10^9 m^3 or 35 trillion cubic feet (Tcf) of natural gas over the term of the licence;
- the point of export of LNG from Canada shall be at the outlet side of the natural gas liquefaction terminal to be located at Bish Cove, near the town of Kitimat, British Columbia, Canada; and
- an early expiration clause where, unless otherwise authorized by the NEB[1], the Licence will expire 10 years after the date of Governor in Council (GIC) approval of the issuance of the Licence if the export of LNG has not commenced on or before that date, or the NEB otherwise directs.

Decision:

The Commission has decided, pursuant to section 118 of the NEB Act, to issue a 40 year License to Chevron Canada, subject to the approval of the GIC, to export natural gas, as defined in the Regulations, subject to the terms and conditions described in Appendix I to this letter.

[1] On 28 August 2019, the *Canadian Energy Regulator Act* (CER Act) came into force, and the NEB became the CER.

Canada

Background:

On 28 August 2019, the *Canadian Energy Regulator Act* (CER Act) came into force, replacing the NEB with the Canada Energy Regulator (CER). The transitional provisions associated with the CER Act specified that applications pending before the NEB before the coming into force of the CER Act, including the present application, are to be dealt with by the Commission of the CER (Commission) under the NEB Act.

On 4 October 2019, the Commission issued Ruling No. 1. The Commission confirmed that the Application would continue to be assessed by a three member panel of the Commission, under the relevant provisions of the NEB Act. Section 118 of the NEB Act sets the criteria under which the Commission considers such licence applications.

Summary of Public Notice, Comment Period, and Information Requests

On 28 June 2019, the NEB issued a letter to Chevron indicating it would consider the Application and instructed Chevron to publish the Notice of Application and Comment Period according to Appendix I of the letter. The NEB also included Information Request (IR) No. 1, which requested Chevron to address the requirements in section 12 of Part VI Regulations from which the Application requested relief.

On 3 July, Chevron filed a letter with the NEB requesting an extension of one day to 11 July 2019, to publish in three weekly publications; *Kitimat Northern Sentinel, Terrace Standard, and Prince Rupert View.* The NEB granted the request on 5 July 2019.

On 11 July 2019, Chevron filed a letter with the NEB indicating it had published the Notice of Application and Comment Period (Notice) for impacted persons in *the Kitimat Northern Sentinel, Terrace Standard, Vancouver Sun, La Source, and Prince Rupert Northern View*, as well as the *Kitimat Connector*. Chevron indicated it had also run a banner ad linking to the NEB REGDOCS page for the Application on the respective websites for *Kitimat Northern Sentinel, Terrace Standard, and Prince Rupert Northern View* from 4 July 2019 to 11 July 2019.

On 15 July 2019, Chevron filed its responses to IR No. 1.

On 13 August 2019, Chevron filed a letter confirming that a hardcopy of the Application was available for public review at both Chevron's Calgary and Kitimat offices from 10 July 2019 to 9 August 2019, inclusive. The Notice indicated that the NEB wished to obtain the views of potentially impacted persons on the merits of the application and that the NEB would consider submissions relevant to the criteria in section 118 of the NEB Act. Submissions were to be made by 9 August 2019, and the NEB provided Chevron the opportunity to respond by 20 August 2019.

On 9 August 2019, the NEB received a letter of comment from Mr. Michael Sawyer, challenging the Application and requesting that the NEB establish a full regulatory process.

On 26 August 2019, Chevron filed its reply comments. Chevron had requested, and the NEB had granted, an extension of six days to the published deadline of 20 August 2019.

In Ruling No. 1, issued 4 October 2019, the Commission found that it did not require the full regulatory process and convening of a public hearing, as requested by Mr. Sawyer, in order to make a decision on the Application.

Summary of Evidence Submitted

Chevron submitted that, as required by the Section 118 Surplus Criterion, the quantity of natural 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, Chevron submitted the following study: *Chevron Canada Limited Application for a 40-Year Gas Export Licence: Gas Supplies, Requirements, Implications and Surplus Assessment Report* (Priddle Report).

The Priddle Report relies, in part, on the NEB publication *Canada's Energy Future 2016: Energy Supply and Demand Projections to 2040* (EF2016). The Priddle Report notes that resource estimates from subsequent Energy Futures reports seem not to have been revised since EF2016. The Priddle Report indicates it uses demand projections from EF2016, which are higher than subsequent reports, to be conservative and deliberately err on the high side for purposes of quantifying the demands that would be placed on the resource base as the Board assesses the matter of "surplus".

The Priddle Report states that Canadian gas requirements are met within an integrated North American market, characterized by many buyers and sellers, an extensive and growing infrastructure, and a sophisticated commercial structure. These characteristics grant market participants a variety of options for securing gas supplies.

The Priddle Report states that the gas resource base in Canada as well as North America is large. It provides estimates for Canadian and North American natural gas resources of 1 087 Tcf and 4 000 Tcf, respectively. It states that assessment of gas resources continue to increase, as do continental proven gas reserves. The Report also notes that some major gas plays await comprehensive assessment, and as these assessments are completed, it will add to the size of the estimated resource.

The Priddle Report states that the resource base can accommodate reasonably foreseeable Canadian demand, including Chevron's proposed exports and a plausible increase in demand. The Priddle Report projects Canadian gas requirements through 2040 at an annual growth rate of 1.9% per year, and includes a 20% upside demand sensitivity.

On 9 August 2019, in a letter of comment, Mr. Sawyer argued that Chevron failed to meet its onus to provide evidence with respect to the Section 118 Surplus Criterion. Mr. Sawyer stated that Chevron does not have adequate natural gas under its control to backstop the applied for 40-year licence and has not supplied any evidence beyond the 25-year time horizon of existing forecasts. Mr. Sawyer provided a report by Mr. J.D. Hughes[2] (Hughes Report) regarding Canadian natural gas supply in support of his argument.

The Hughes Report states that broad extrapolations across wide areas have produced mean estimates of undiscovered gas resources in the Western Canada Sedimentary Basin of 988 Tcf. It states that these are mainly tight- and shale-gas resources and suggests that since they are undiscovered, their existence and economic recoverability are highly uncertain. These resource estimates reported by the NEB are not compliant with National Instrument 51-101 (NI 51-101) and must be viewed as speculative at best. Long-term gas supply for Canadians is at risk should speculative estimates of undiscovered resources not pan out.

---

[2] *Concerns about the proposed Chevron-Kitimat LNG application for a 40-year export license in consideration of Canada's long-term energy security and emissions reduction commitments* by J.D. Hughes

The Hughes Report argues Canada's proved reserves are a better measure of supply available to Canadians. Canada's proved reserves of gas are 71 Tcf. These reserves will last 12.1 years at current production rates. Increasing production by 3.47 billion cubic feet per day (Bcfd) to supply Chevron will reduce Canada's reserve lifetime to 9.9 years and further increasing production to supply Kitimat LNG will reduce Canada's reserve lifetime to 7.1 years.

The Hughes Report also states that the Priddle Report is flawed when including total North American resource potential. Hughes suggests that the total North American gas supply is not relevant for Kitimat LNG gas supply owing to transport costs from the U.S. and/or Mexico and the fact that U.S. and Mexican gas is dedicated to other markets.

The Hughes Report argues that industry targets the highest quality, lowest cost resources first, leaving lesser quality, higher cost resources for later. This means that accelerating LNG exports through the approval of Kitimat LNG's 40-year export application will deplete the lowest cost remaining Canadian gas resources sooner and increase prices for Canadians in the longer-term. This could also conceivably result in supply disruptions should the undiscovered resources the Priddle Report's surplus is based on not pan out.

The Hughes Report draws attention to the Priddle Report's reference to a public CER Frequently Asked Questions webpage, which states that the Commission does not generally consider cumulative volumes of export licences issued. Hughes states that the Commission not considering the cumulative impact on supply is a revelation, given the Commission is required to assure Canadians' long-term gas supplies are not in jeopardy.

Mr. Sawyer also submitted that Chevron's evidence and the information contained in the Priddle Report do not contain meaningful discussion about the implication of market disruptions of the Canadian natural gas supply and demand markets as a consequence of new provincial, federal or international policies, regulations or legislation with respect to a number of social, economic and environmental factors. Mr. Sawyer submitted a letter by Dr. E. Finn (The Finn Report) which examined macro-economic factors that may potentially impact Canadian natural gas supply.

The Finn Report submitted by Mr. Sawyer addressed economic challenges and the profitability of the LNG industry and the Kitimat LNG facility project underlying the proposed exports.

On 26 August 2019, Chevron filed reply comments, including comments by Mr. Priddle. In terms of potential supply disruptions, Priddle argued that potential risks were sufficiently addressed in his report. He responded that in this efficient, functioning gas market, "disruptions" rarely arise in the sense that sellers are unable to dispose of production or buyers cannot obtain supply.

Chevron argued in its original submissions and through the Priddle Report that it provided adequate evidence to satisfy the surplus test, as set out in section 118 of the NEB Act. Chevron requested that the Commission proceed with the processing of the Application.

In the reply submission, Priddle stated that the Hughes Report's emphasis on gas reserves, recent changes in gas reserves and on reserves/production ratios is misplaced, and that proved reserves represent only a small fraction of the total existing resource. Priddle submitted that the Hughes Report calculations of reserve "lifespans" are meaningless in the context of the surplus criterion. Priddle referenced that proved reserves were rejected by the NEB as a regulatory tool in the past, in the 1987 *Reasons for Decision on Review of Natural Gas Surplus Determination Procedures* (GHR-1-87):

Although simple, a Reserves Formula is susceptible to being misunderstood, and could result in excessive inventory costs and foregone profitable exports. It gives no guidance with respect to feasible or desirable time profiles for new exports.

Regarding the source of supply, Priddle stated that, while the Hughes Report discusses British Columbia gas production, the Priddle Report deals with gas supply from the WCSB as a whole. Priddle stated that it does not identify supply from regions or provinces within the WCSB, because the regional and provincial origin of WCSB supply has changed over the years and may continue to change.

Priddle submitted that the NEB, in prior proceedings, took the position that the Export Impact Assessment component of the now superseded Market Based Gas Export Procedure was not intended to be used to protect Canadians from rising energy prices. It is relevant to point out that, even in the presence of increasing North American gas demand, underpinned by rising LNG exports from the USA, Canadian gas prices in real terms are at historic lows.

Views of the Commission

The Commission's role is to assess, under section 118 of the NEB Act, 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 natural gas in Canada (Surplus Criterion). In fulfilling this mandate, the Commission recognizes 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 natural gas demand. It is in this context that the Commission considers whether the Surplus Criterion in the NEB Act is satisfied.

The Commission shares Mr. Priddle's view that the North American natural gas market is generally liquid, efficient, integrated, and responsive to changes in supply and demand.

The Commission acknowledges that resource estimates are typically based on assumptions which carry some uncertainties, as do many analyses. The Commission notes that NI 51-101 and the CER's resource assessments, such as those included in EF2016 and cited in the Priddle Report, serve two different purposes. The NI 51-101 is a regulatory instrument for corporate reporting of reserves and resources. The CER's resource assessments, however, are not based on a regulatory instrument, but are meant to inform policy makers, regulators, and markets about the total, potential gas resource available in the very long term. Because CER resource assessments are long term, the assessments focus more on geologic potential instead of potential based on economics. They are also based on geological and production information gathered at the time.

The Commission is satisfied with the Priddle Report's use of projections from EF2016, and the conservative approach taken when discussing future natural gas requirements in Canada. The Commission agrees with the Priddle Report that, since those resource data were published, nothing has happened that would reduce confidence in the abundance of the resource. The Commission also agrees with the Priddle Report that proved reserves account for a small fraction of the total resources. The Hughes Report did not contain sufficient evidence to convince the Commission otherwise.

The Commission does not agree with the Hughes Report that broader North American gas resources are irrelevant to Canadian requirements. This is not about whether those resources can supply Canadian LNG exports, but whether those resources can supply an integrated North American market. The Commission notes that, for example, LNG exports from western Canada could reduce pipeline shipments of natural gas from western Canada to eastern Canada, causing more U.S. gas production to be imported into eastern Canada. Less U.S. gas flowing to Mexico could then cause Mexico to increase their gas production to supply their demand. It is the Commission's view that a project's connection to the North American gas market is an important factor when determining that the Surplus Criterion is met. There are numerous ways Canada's requirements for natural gas could be met in this integrated market if Canadian exports of LNG occur. The Commission is confident that the exports proposed by the Applicant will not impact the supplies.

While the Hughes Report is correct that the most economic resources are developed first, and that LNG exports could potentially increase gas prices for Canadian consumers as the gas resource matures, the Commission agrees with the comments of Mr. Priddle that prior export-impact assessments were not used to protect Canadians from higher prices. The Commission also agrees that, despite increasing gas demand in North America and rising LNG exports from the U.S., gas prices are at historic lows in Canada.

Regarding potential supply disruptions, the Commission is of the view that, in an integrated, well-functioning market, potential disruptions that may impact future supply of natural gas in North America, to the extent they are relevant, have been sufficiently addressed by the Priddle Report. Further, the Commission believes the potential disruptions listed by Mr. Sawyer and addressed by Mr. Priddle are low probability events and are not substantive enough to impact the assessment of the Surplus Criterion. The Commission notes that sections 348 and 350 of the CER Act enable the CER to vary, suspend, or revoke export licences, with approval of the Minister, if it is in the public interest.

The Commission has determined that the quantity of natural gas proposed to be exported by Chevron, for a term of 40 years, is surplus to Canadian needs. The Commission is satisfied that the natural gas resource base in Canada, as well as North America overall, is large and can accommodate reasonably foreseeable Canadian demand, including the natural gas exports proposed in this Application, and a plausible potential increase in demand.

The Commission acknowledges that cumulative volumes of export licences issued represent a significant volume of potential natural gas exports. However, all of the LNG ventures are competing for a limited global market, and the evidence filed in this proceeding, including the Finn Report filed by Sawyer, demonstrates the significant economic and financial challenges faced by proposed LNG-export projects. In light of this, the Commission takes the view, consistent with its predecessor the NEB, that it believes not all LNG export licences issued will be used or used to their full allowance.[3]

For this reason, the Commission does not find cumulative licensed volumes to be an accurate or meaningful measure in assessing whether Canadians' requirements for natural gas will be met. Rather, forecasts of the actual amount of LNG to be exported

[3] NEB Letter Decision – Woodside Energy Holdings Pty Ltd., PDF page 2, [Filing A65596]).

from Canada are more valuable. In this regard, the Priddle Report forecasts 5.9 Bcf/d of LNG exports from 2030 onward, which the Commission finds reasonable given the limited global market for LNG. The Commission is satisfied that, after accounting for this 5.9 Bcf/d of LNG exports, enough surplus natural gas remains for Canadian use.

Further, the Commission notes that all existing LNG export licences are subject to early expiration clauses, whereby the export licence expires within 10 years of GIC approval if exports under the licence have not commenced. The Commission considers this as an additional constraint on the total volume of licenses issued becoming actual export volumes.

The Commission is satisfied that the resource size and the efficient nature of natural gas markets in North America, along with global LNG markets, will dictate which projects will be built, and it is not the role of the regulator to pick market winners and losers in a well-functioning gas market.

Gas export licences do not require exports, only permit them. The Commission emphasizes that an export permit is not a construction approval, and that the necessary approvals to construct a project may be subject to assessments by provincial or federal processes that are beyond the jurisdiction of the CER. With that in mind, the LNG export license application is only one step in a chain of regulatory processes that are required for a company to construct and operate an LNG export facility. The specific physical, operational, and financial details of a proposed project are properly adjudicated at the time the company applies for approval to construct and operate the facility, and these details would be considered by whichever regulator has jurisdiction to conduct such an evaluation.

The Commission monitors Canada's natural gas supply and demand, including LNG developments. Monitoring assists the Commission 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 have future energy requirements met. The Commission notes that the evidence in this Application and in the Priddle Report are generally consistent with the Commission's current market monitoring.

Relief from Filing Requirements

Chevron requested relief from the information requirements for gas export licence applications set out in section 12 of the Part VI Regulations, except where those requirements are addressed within the Application.

In its response to IR No. 1, Chevron provided further information, indicating that some information requested in the filing requirements will not be available until contractual arrangements for the movement of gas in Canada are made, which is not expected until after the final investment decision for the Kitimat LNG Terminal.

Views of the Commission

The Commission is satisfied that Chevron has met the filing requirements of section 12 of the Part VI Regulations to the extent possible. The Commission finds that Chevron has sufficiently demonstrated that it is unable to provide further information.

The Commission notes that in previous NEB decisions, similar relief has been requested and granted in numerous LNG export applications as a result of the NEB's *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 Memorandum). The Memorandum indicates that applicants for gas export licences are no longer required to file the information contained in paragraph 12(f) of the Part VI Regulations. The Commission is in the process of updating the Part VI Regulations to align with changes to the new *Canadian Energy Regulator Act.*

The Commission recognizes that not all of the filing requirements contained in section 12 of the Part VI Regulations are relevant to its assessment of this Application.

Therefore, the Commission exempts Chevron from the filing requirements contained in section 12 of the Part VI Regulations that were not included in the Application. Specifically:

- 12(b)(ii);
- 12(c)(i)(A)(B) and (C);
- 12(h)(i)(ii)(iii)(iv)(v)(vi)(vii); and
- 12(i).

The Commission also grants partial relief from the filing requirements of subsection 12(d) in relation to firm contracts and subparagraphs 12(e)(i)(ii) and (iii) in relation to all contracts, transportation contracts, and facilities outside of Canada.

In the Commission's view, no further relief is required in the granting of this Application.

Murray Lytle
Presiding Commissioner

Kathy Penney
Commissioner

Mark Watton
Commissioner

November 2019
Calgary, Alberta

Appendix I

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

General

1. Chevron Canada Resources (Chevron) shall comply with all of the terms and conditions contained in this licence unless the Canada Energy Regulator (CER) 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 40 years thereafter.

3. This Licence shall expire 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, or the Commission otherwise directs.

4. The maximum quantity of natural gas, inclusive 15% of tolerance, that can be exported by Chevron under the authority of this licence is:

   a. 28.23 10^9m^3 annually, in any 12-month period; and

   b. 982 10^9m^3 for the term.

5. The point of export of natural gas from Canada shall be at the outlet side of the proposed natural gas liquefaction terminal to be located at Bish Cove, near the town of Kitimat, British Columbia, Canada;

6. The natural gas to be exported by Chevron must meet the definition of natural gas set out in the *National Energy Board Act Part VI (Oil and Gas) Regulations.*