



ONTARIO ENERGY BOARD

STAFF SUBMISSION

**Phase 2 – EPCOR Natural Gas LP
2020-2024 Rates Application
EB-2018-0336**

August 29, 2019

Background

EPCOR Natural Gas Limited Partnership (EPCOR Natural Gas) is a privately owned utility regulated by the Ontario Energy Board (OEB) that sells and distributes natural gas in southwestern Ontario. EPCOR Natural Gas serves over 9,000 customers in Aylmer and surrounding areas.

In August 2016, Natural Resource Gas Limited (NRG, the former owner of the gas distribution system) filed a cost of service and Incentive Rate-setting Mechanism (IRM) application for the period October 1, 2016 to September 30, 2021.¹ Before the application could be processed by the OEB, NRG informed the OEB that it was discussing the sale of its natural gas distribution system. In November 2017, EPCOR Natural Gas purchased all the distribution assets from NRG. EPCOR Natural Gas withdrew NRG's 2016 cost of service application. It replaced the application with a request to set rates under the existing IRM framework that was used to set NRG's rates and extend it for the period 2016 to 2019.²

In February 2019, EPCOR Natural Gas filed a cost of service application (the subject application) seeking approval to charge new rates for the sale and distribution of gas effective January 1, 2020 and approval of an incentive rate-setting plan for the period January 1, 2021 to December 31, 2024. A settlement was reached on all issues between the parties. In the OEB-approved settlement proposal, parties agreed to address the cost of four capital projects completed by NRG in 2016 and 2017 in a future rates proceeding or as phase 2 of the current proceeding.

In the Decision and Interim Rate Order issued on July 4, 2019, the OEB accepted the settlement proposal and scheduled phase 2 of the proceeding to review the four system integrity projects completed by NRG in 2016 and 2017. The OEB provided for EPCOR Natural Gas to file additional evidence, interrogatories on that evidence, submissions and reply argument. EPCOR Natural Gas filed additional evidence regarding the four capital projects on August 1, 2019. OEB staff and the Vulnerable Energy Consumers Coalition (VECC) filed interrogatories on August 8 and 9, 2019. EPCOR Natural Gas filed its responses on August 19, 2019.

OEB staff's submission below discusses the issue of system integrity and the impact of low system pressure on the former NRG's distribution system, assesses the significance of the four system integrity projects in relation to the SNC-Lavalin study

¹ NRG, EB-2016-0236

² EPCOR Natural Gas, EB-2018-0235

filed by NRG in 2016 and presents arguments on the prudence of the four projects, and whether they should be included in EPCOR Natural Gas' rate base.

Summary of Staff Submission

NRG spent approximately \$2.0 million in 2016 and 2017 on projects to address system integrity issues. EPCOR Natural Gas has added these projects to rate base in order to determine the interim 2020 rates. The OEB in this phase of the proceeding will determine the prudence of the four projects and the amount that will be finally allowed in rate base. The projects and their associated 2020 net book values are:

1. \$402,639 for the Union Gas Bradley Station project (Bradley Station).
2. \$748,383 for the pipeline from the Bradley Station to the Wilson Line project (Bradely x Wilson Line).
3. \$498,922 for the pipeline from the existing Putnam Station to Culloden Line project (Putnam x Colloden pipeline).
4. \$265,015 for the extension of the Springwater Road pipeline from south of Orwell to John West Line project (the Springwater pipeline).

OEB staff supports the system integrity projects that are directly related to receiving supplies from Union Gas at the Bradley Station (the Bradley Station Project and the Bradley x Wilson pipeline). These projects were required and the costs are prudent. OEB staff is of the view that the Putnam x Culloden pipeline is not a system integrity project. The pipeline improved reliability and facilitated future growth. The spending on this project should have been allocated to projects that would have reduced or eliminated reliance on locally produced premium priced gas and diminished the market power exercised by NRG Corp. The recovery of the cost of this project should accordingly be denied. The Springwater pipeline was required to push the additional supplies from Union Gas further south to the system. Accordingly, this project should have resolved system integrity issues in the south, the main reason for ratepayers to pay a premium to acquire locally produced gas. However, the completion of this project had no impact on ratepayers as they continue to pay a premium price for locally produced gas. In other words, although the project was needed, it did not provide a corresponding benefit to ratepayers. OEB staff therefore submits that the OEB should allow the project to be entered into rate base for 2021 rates (net book value as of January 1, 2021) in line with EPCOR Natural Gas' proposal to stop purchasing locally produced premium priced gas effective September 30, 2020.

History of System Integrity

In NRG's 2011 cost of service proceeding, NRG indicated that it required locally produced gas in order to address system pressure issues in the southern part of its service territory.³ NRG's natural gas distribution system essentially began as a gathering system for local production and it later became a natural gas distribution system serving customers.⁴ NRG Corp., a company related to NRG with common officers, owned a majority of the wells in and around Aylmer. NRG purchased natural gas from NRG Corp., for over 30 years. Over the years, the two companies worked closely together, drilling and developing wells in areas where NRG needed gas.⁵

In the 2011 rates proceeding⁶, NRG indicated that on a very cold day with heavy demand, it may not be able to get enough gas from its existing connections to Union Gas Limited's (now Enbridge Gas Inc.) system to maintain adequate pressure in certain parts of its distribution system. In order to ensure adequate pressure at all times, NRG maintained that it must also take local gas into its system. In the 2011 rates proceeding, NRG requested approval to purchase 2.4 million cubic metres of natural gas from NRG Corp. at a price of \$8.486 per mcf. (roughly 30 cents per cubic metre, a significant premium from the market price).⁷ NRG submitted that NRG Corp. was unwilling to sell gas at the market price and purchasing the natural gas at a premium from NRG Corp. was the most sensible way of dealing with the system integrity issue, and by far the cheapest for ratepayers.⁸

In that application⁹, NRG submitted a system integrity study completed by Aecon Utility Engineering (Aecon study) that suggested a cost of between \$8 million and \$23 million for new pipeline infrastructure to resolve system pressure issues. NRG argued that purchasing local gas was a lower cost alternative than spending on the recommended pipelines. The Aecon study indicated that apart from significant spending on infrastructure projects, the only way to alleviate system pressure issues in the southern service area was to inject additional gas from local gas producing wells (namely, wells of NRG Corp.).¹⁰ VECC and OEB staff opposed the proposed approach (purchasing natural gas from NRG Corp. at a premium) in their submissions, and recommended that NRG be required to complete an independent study with input from intervenors. OEB

³ NRG Argument-in-Chief Phase 2, EB-2010-0018, December 23, 2011, pgs.2-3

⁴ *ibid*, p.1

⁵ *ibid*, p.1

⁶ Eb-2010-0018

⁷ NRG Argument-in-Chief Phase 2, EB-2010-0018, December 23, 2011, p.17

⁸ *ibid*, p.3

⁹ EB-2010-0018

¹⁰ NRG Argument-in-Chief Phase 2, EB-2010-0018, December 23, 2011, pgs.4-10

staff argued that the Aecon study did not conduct alternative simulations and did not consider options for additional gas from Union Gas.¹¹

In its decision, the OEB ordered NRG to complete a system integrity study that would examine possible engineering solutions and a competitive market study that would consider the mechanics of establishing a competitive market for natural gas using local sources within NRG's franchise area.¹² In the meantime, the OEB allowed NRG to purchase a maximum annual quantity of one million cubic meters from the affiliate at a premium price of \$8.484 per mcf. NRG was required to file the study no later than September 30, 2012.

The process of sourcing and engaging consultants to complete the studies as well as the pressure simulations took longer than expected and NRG filed the study in August 2016 as part of its cost of service application.¹³ NRG filed two reports in its application. The first study, completed by SNC-Lavalin, examined system pressure issues and recommended engineering solutions while the second study, completed by Dr. Philip Walsh, assessed the market for locally-sourced gas and recommended procurement solutions. However, the two studies could not be reviewed as NRG's 2016 rates application was not processed by the OEB on account of the then pending sale to EPCOR Natural Gas. The two studies were also filed in the current EPCOR Natural Gas rates application.

The SNC-Lavalin study concluded that the NRG system integrity problem arises from the fact that gas cannot move freely from the inlet locations in the north and east, into the south-west quadrant and into the Brownsville area. The study recommended that the Glencolin Line and the Wilson Line be extended and the Ostrander Loop be added to the NRG system.¹⁴ No cost estimates were provided for the proposed projects. However, NRG did not adopt the recommendations of SNC-Lavalin and proceeded with projects that were not identified or supported by the SNC-Lavalin study.

¹¹ OEB Staff final arguments, Phase 2, EB-2010-0018, January 9, 2012, pgs.4-5

¹² OEB Decision and Order, Phase 2, May 17, 2012

¹³ EB-2016-0236

¹⁴ EB-2018-0336, Exhibit 1, Tab 4, Schedule 2, Transient Simulations of the NRG Distribution System Report, March 2016, pgs.22-23

Staff Submission

The winter of 2014-2015 saw record low temperatures and NRG faced the real risk of having to interrupt its residential customers.¹⁵ Accordingly, NRG requested additional natural gas supplies from Union Gas. Union Gas agreed to provide additional supplies from existing and additional facilities to be constructed and in service by November 1, 2016 at Union Gas' Bradley Station. EPCOR Natural Gas in its evidence has indicated that two of the four system integrity projects (the Bradley Station Project and the Bradley x Wilson pipeline) were directly related to obtaining the new high pressure gas supply from Union Gas at the Bradley Station.

EPCOR Natural Gas further notes that the SNC-Lavalin study did not consider the additional volumes from Union Gas and therefore its recommendations were different from the projects that were eventually constructed by NRG. In response to an interrogatory, EPCOR Natural Gas speculated that this could be a timing issue as SNC-Lavalin would not have been able to update its study and re-run its simulations in a timely manner.¹⁶ In the same response, EPCOR Natural Gas indicated that based on the revisions to the NRG filing and the SNC-Lavalin study, it believes additional modeling was likely done. OEB staff submits that these appear to be conflicting responses and raise questions as to why NRG did not implement the recommendations of the SNC-Lavalin study.

In its evidence, EPCOR Natural Gas has indicated that the four system integrity projects were successful in alleviating the low pressure issues in the Brownsville area and in the southwest around the Town of Aylmer. If this was the case, the question arises as to why NRG in its 2016 cost of service application requested approval to purchase 1.5 million m³ of natural gas annually from the affiliate at a premium price of \$8.486 per mcf. for the rate period until 2021.¹⁷ This quantity was 50% higher than what the OEB approved in the 2011 rates proceeding.¹⁸ In that proceeding, NRG had specifically indicated that the reason for procuring additional supplies from NRG Corp. was to alleviate system pressure issues in the south. If the system pressure issues were resolved in the south as a result of the four system integrity projects, it is not clear why additional premium priced local gas was required.

While the utility was under different ownership in 2016, EPCOR Natural Gas is still purchasing locally produced premium priced gas and will continue until September 2020, nine years after the OEB approved the purchase of one million cubic metres

¹⁵ EB-2015-0308, Affidavit of Brian Lippold

¹⁶ Response to OEB Staff IR#2, Phase 2, August 19, 2019.

¹⁷ EB-2016-0236, Exhibit 1, Tab 1, Schedule 2, p.2

¹⁸ OEB Decision and Order, Phase 2, May 17, 2012

annually as a temporary measure. In this application, EPCOR Natural Gas requested approval to recover from ratepayers a rate of \$8.486 per mcf. for one million cubic metres until the end of the current gas purchase agreement that expires on September 30, 2020.¹⁹ The gas purchase agreement was approved in the MAADs application of EPCOR Natural Gas.²⁰ The proposal to continue purchasing one million cubic metres at a rate of \$8.486 per mcf., until September 30, 2020 in accordance with the gas purchase agreement, was approved as part of the settlement proposal in this proceeding. EPCOR Natural Gas further confirmed that additional reinforcement projects that it proposes to undertake (different from the four system integrity projects that are the subject of this submission) will ensure that premium priced gas will no longer be required beyond the expiration of the current gas purchase agreement.²¹

In the OEB's decision in the 2011 rates proceeding, the OEB opined that its main concern was the pricing mechanism being sought by NRG and the significant market power of NRG Corp. within NRG's franchise area. The OEB was concerned that customers could face a potential shutdown of service or if service is provided, customers could pay significantly higher than market rates for a material portion of their supply.²² The OEB therefore ordered an independent study including a market study to examine viable supply options within NRG's franchise area. In other words, the study's main objective was to reduce the reliance on locally produced gas. However, NRG made no concerted effort to reduce the market power of NRG Corp. and reduce reliance on locally sourced gas. In other words, NRG ratepayers paid for the independent study, are paying for premium priced gas, will pay for system integrity projects that will be undertaken by EPCOR Natural Gas and are now being asked to pay for the four system integrity projects that were completed by NRG. However, they received no relief from paying for the premium priced gas. NRG in fact requested even larger quantities of locally produced premium priced gas in its 2016 rates application.²³

The question before the OEB in this proceeding is to determine whether the four system integrity projects completed by NRG were prudent. OEB staff has already established that NRG did not make any attempts to reduce reliance on locally produced gas through the implementation of its system integrity projects. The next important question is whether the projects genuinely contributed to resolving any system integrity issues. Any pipeline project connecting to an existing distribution system whether prudent or not, will provide a certain degree of benefit to the system.

¹⁹ Response to OEB Staff IR#44

²⁰ EB-2016-0351, Mergers, Acquisitions, Amalgamation and Divestitures (MAADs)

²¹ Exhibit 4, Tab 1, Schedule 1, p.6

²² OEB Decision and Order, Phase 2, May 17, 2012, p.8

²³ EB-2016-0236, Exhibit 1, Tab 1, Schedule 2, p.2

The question is whether the project provides the appropriate incremental benefits to justify the costs.

The total cost of the projects was approximately \$2 million which is significant in relation to the total rate base of the utility which was forecasted to be \$13.6 million in 2017 as per NRG's 2016 rates application.²⁴

In a leave to construct application, the OEB assesses whether the project is in the public interest and this is mainly achieved by establishing a need for the project, and comparing the costs versus the benefits of the project. Although the projects in question did not require leave to construct approval, an examination of the need for the projects is an important criteria to establish prudence. The need in this case is established in the context of system integrity.

Need for the Four System Integrity Projects

NRG experienced significant declines in system pressure during the winter of 2014-2015 and therefore it requested additional volumes from Union Gas. NRG and Union Gas were able to eventually reach an agreement and Union Gas agreed to provide additional volumes through Union Gas' Bradley Station. OEB staff understands that NRG faced the real risk of interrupting its residential customers and additional volumes were required from Union Gas. This issue arose after the 2011 rates proceeding and the projects were in response to addressing system pressure issues more broadly throughout the distribution system. The Bradley Station project and the Bradley x Wilson pipeline were directly related to receiving the high pressure gas supply from Union Gas. OEB staff agrees that the projects were required and they were prudent system integrity projects. OEB staff does not oppose the addition of the cost of these two projects into the rate base for 2020 rates. OEB staff agrees that the projects were prudent and accepts the costs as filed.

With respect to the Putnam x Culloden pipeline, EPCOR Natural Gas in its evidence notes that SNC-Lavalin did not examine the Putnam x Culloden pipeline; it was not part of its recommendation. The SNC-Lavalin study does not indicate any pressure issues at the Putnam Station.²⁵ There was no difference between the actual and calculated pressure from November 12, 2014 data and the pressure at 81 psig was considered high by SNC-Lavalin in the study.²⁶ The map provided by EPCOR Natural Gas in response to an OEB staff interrogatory does not show low pressure in this

²⁴ EB-2016-0236, Exhibit 2, Tab 1, Schedule 2

²⁵ The Putnam Station is located in the northern part of the distribution system

²⁶ SNC-Lavalin Study, March 2016, Exhibit 1, Tab 4, Schedule 2, p.17

area.²⁷ The evidence of EPCOR Natural Gas further indicates that the new pipeline looped the existing pipeline along Culloden Line, thereby improving operational flexibility and reliability. The evidence further notes that if a break or leak were to occur along this stretch of main, the flow of gas can be isolated locally at the leak and customers can be back-fed from the other direction, minimizing the number of customers impacted.²⁸ This clearly seems to indicate that it is meant to operate as a relief line. EPCOR Natural Gas has also noted that the pipeline would ensure access to new connections in the northeast area and the solution implemented by NRG reflected more foresight.²⁹ This view seems to indicate that the project was aimed to support future growth and the foresight in this context is related to connecting customers in the future; it is not clear how this was a system integrity project. NRG should have reprioritized its spending and focused on resolving system integrity issues that would have reduced the market power exercised by NRG Corp., a key concern of the OEB in the 2011 rates decision.³⁰ However, NRG decided to spend on projects that did not provide the required benefits to ratepayers and continued the existing approach (paying a premium for locally produced gas). On the basis of the above arguments, OEB staff submits that the Putnam x Culloden pipeline was not a system integrity project and accordingly the cost of the pipeline (\$498,922) should be permanently excluded from rate base.

The fourth project is the Springwater pipeline. The Springwater pipeline allowed NRG to push the additional gas from the Bradley Station to the south of the system where system pressure was low. This is evident from the map provided by EPCOR Natural Gas showing the four system integrity projects.³¹ However, the SNC-Lavalin study concluded that the Springwater pipeline (John Wise Line Loop) would provide limited benefits as a standalone option.³² EPCOR Natural Gas in its evidence has noted that the SNC-Lavalin study did not consider the Springwater pipeline option in conjunction with a significant supply increase through the Bradley Station and the Bradley x Wilson pipeline. OEB staff has evaluated the project and the flows as indicated in the map and agrees that the Springwater project did increase flows to the southern part of the distribution system where pressure issues had been identified in the 2011 rates proceeding.³³ OEB staff believes that this project should have resolved system integrity issues in the southern part of the system. This view has been confirmed by EPCOR

²⁷ Phase 2, response to OEB staff IR#6

²⁸ Phase 2 Evidence, para 13, p.12

²⁹ *ibid*, para 14

³⁰ OEB Decision and Order, Phase 2, May 17, 2012, p.8

³¹ Map provided in OEB Staff IR#3

³² SNC-Lavalin Study, March 2016, Exhibit 1, Tab 4, Schedule 2, p.19

³³ EB-2010-0018

Natural Gas in its evidence where it notes that the projects were successful in alleviating the low system pressure issues in the Brownsville area and in the southwest near and in the Town of Aylmer. It is unclear to OEB staff why NRG (and later EPCOR Natural Gas) continue to need premium priced locally produced gas. If the projects succeeded in addressing system integrity issues in the south, the quantity of premium priced gas should have been reduced or eliminated. However, none of that happened. NRG in its 2011 rates proceeding argument-in-chief indicated, “Because the pricing of NRG Corp. gas is tied to the system integrity issue... the inquiry expanded into whether there are other options for resolving the system integrity issue (i.e. other than requiring NRG to purchase gas from NRG Corp.)”.³⁴ One of the potential options included constructing additional pipeline capacity to NRG’s southern service area. This has already been constructed in the form of the Springwater pipeline project but ratepayers have not received any relief from paying a premium for locally sourced gas.

OEB staff agrees that the project was required but ratepayers did not receive the anticipated benefit that was expected as a result of the project. Accordingly, OEB staff submits that the project should be allowed to be entered into rate base as of January 1, 2021 (2021 rates) in line with EPCOR Natural Gas’ proposal to stop purchasing locally produced premium priced gas effective September 30, 2020. This would be an appropriate approach considering that ratepayers will receive relief in October 2020 from paying a premium price for a portion of their gas supply. The net book value of the project to enter rate base under the proposed approach would be calculated as of January 1, 2021.

Conclusion

OEB staff in its submission has provided a detailed discussion on the history of system integrity, previous OEB decisions in this regard and discussed at length the four system integrity projects that are the subject of this phase of the proceeding.

OEB staff supports the system integrity projects that are directly related to receiving supplies from Union Gas at the Bradley Station (the Bradley Station Project and the Bradley x Wilson pipeline). These projects were required and the costs are prudent. The total net book value of the two projects is \$1,151,022 and this amount should be allowed to remain in rate base.

The Putnam x Culloden pipeline was not a system integrity project. The pipeline aims to improve reliability and accommodate for future growth. The spending on this project should have been allocated to projects that would have reduced or eliminated reliance

³⁴ NRG argument-in-chief, Phase 2 EB-2010-0018, December 23, 2011, p.3

on locally produced premium priced gas and diminished the market power exercised by NRG Corp. The recovery of the cost of this project should accordingly be denied and the project should be permanently excluded from rate base.

The Springwater pipeline was required to push the additional supplies from Union Gas further south to the system. Accordingly, this project should have reduced or eliminated the need for locally produced premium priced gas. The premium paid for the locally produced gas was specifically identified to support pressure in the southern part of the distribution system.³⁵ However, the completion of this project had no impact on ratepayers as they continue to pay a premium price for locally produced gas. In other words, although the project was needed, it did not provide a corresponding benefit to ratepayers. OEB staff has therefore proposed to align the timing of the inclusion of the project in rate base to the proposed elimination of premium pricing for locally sourced gas.

– All of which is respectfully submitted –

³⁵ NRG argument-in-chief, Phase 2 EB-2010-0018, December 23, 2011, p.1