

**Ontario Energy
Board**
P.O. Box 2319
27th Floor
2300 Yonge Street
Toronto ON M4P 1E4
Telephone: 416- 481-1967
Facsimile: 416- 440-7656
Toll free: 1-888-632-6273

**Commission de l'énergie
de l'Ontario**
C.P. 2319
27e étage
2300, rue Yonge
Toronto ON M4P 1E4
Téléphone: 416- 481-1967
Télécopieur: 416- 440-7656
Numéro sans frais: 1-888-632-6273



BY E-MAIL

February 4, 2020

Christine E. Long
Registrar & Board Secretary
Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4

Dear Ms. Long:

**Re: Enbridge Gas Inc. 2020 Rates Application
OEB File Number: EB-2019-0194**

In accordance with OEB's Decision and Interim Rate Order dated December 5, 2019, please find attached written interrogatories of OEB staff with respect to all matters in Phase 2 of the above noted proceeding. The attached document has been forwarded to the applicant and to all other registered parties to this proceeding.

Yours truly,

Original Signed By

Khalil Viraney
Project Advisor

Encl.



OEB Staff Interrogatories

**Enbridge Gas Inc. 2020 Rates Application
Phase 2**

EB-2019-0194

February 4, 2020

Exhibit B: Cost Allocation Study (Union Gas rate zones), Incremental Capital Module and eBilling

Cost Allocation Study

B.Staff.1

Ref: Exhibit B, Tab 1, Schedule 1, Appendix C: Cost Allocation Study, Table 1, p. 5

Enbridge Gas has provided a table that shows a summary of the results of the 2019 cost allocation study directive using OEB-approved cost allocation methodologies and the proposed cost allocation methodologies provided in response to the OEB's directive in the MAADs Decision (EB-2017-0306/0307). The summary shows the revenue sufficiency/deficiency across the various rate classes.

- a) Please clarify if the column "Current Approved Revenue" represents the rate year 2019 or 2020.
- b) Please confirm if the amounts of the revenue sufficiency/deficiency under the proposed methodology includes the amounts recovered as capital pass-through adjustments.
- c) Please provide a revised table that includes an additional column that shows the amounts recovered as capital pass-through adjustments.

B.Staff.2

Ref: Exhibit B, Tab 1, Schedule 1, Appendix C: Cost Allocation Study, Table 1, pp. 18-21

Enbridge Gas has allocated the compressor costs at Parkway in proportion to the easterly design day demands requiring compression at Parkway. This allocation methodology recognizes that compressor equipment is used on design day to move volumes to markets east of Parkway. However, compression costs of the Dawn-Parkway System (Dawn, Lobo and Bright) are allocated on a distance weighted methodology. The evidence notes that a distance weighted allocation is appropriate for compression costs at Dawn, as additional compression is required the further gas is required to travel on the Dawn-Parkway system.

Please explain why compression costs at Parkway are allocated in proportion to easterly design day demand and does not take into account distance travelled similar to compression costs at Dawn.

B.Staff.3

Ref: Exhibit B, Tab 1, Schedule 1, Appendix C: Cost Allocation Study, Table 1, pp. 26-28

In the MAADs Decision (EB-2017-0306/0307), Enbridge Gas was directed to include a proposal to address TransCanada's Rate C1 Dawn to Dawn-TCPL service. In this study, Enbridge Gas has not updated the Rate C1 Dawn to Dawn-TCPL firm demand rate to reflect updated costs from the 2019 cost allocation study. The Rate C1 Dawn to Dawn-TCPL rate design was approved by the OEB in 2010 as part of Union Gas's Dawn to Dawn-TCPL Firm Rate proceeding (EB-2010-0201). As part of Union Gas's OEB-approved cost allocation study, the revenue requirement of \$0.5 million related to the Dawn to Dawn-TCPL facilities was included in setting the Rate C1 Dawn to Dawn-TCPL firm demand rate, which represented the third year of the five year depreciation period. During Union Gas's 2014-2018 IRM term, there was no further adjustment made to the revenue requirement for the service even though the assets had fully depreciated in 2015. As part of the MAADs proceeding, TransCanada (TC) Energy submitted that the revenue requirement of the Rate C1 Dawn to Dawn-TCPL could be reduced without any cost consequences to other shippers. Enbridge Gas does not agree with this view and has noted that a reduction to the Rate C1 Dawn to Dawn-TCPL demand rate would impact other shippers, as any rate adjustments made during the deferred rebasing period should be made on a revenue neutral basis for the utility.

- a) In the MAADs proceeding, Enbridge Gas requested certain base rate adjustments (deferred tax drawdown, EGD customer information system costs, pension costs and site restoration costs). Please explain why Enbridge Gas did not request a base rate adjustment to the Rate C1 Dawn to Dawn-TCPL firm demand rate considering that the asset had fully depreciated in 2015.
- b) Why is Enbridge Gas proposing no changes to the Rate C1 Dawn to Dawn-TCPL firm demand rate considering that the OEB in the MAADs Decision required Enbridge Gas to present a proposal to address TransCanada's Rate C1 Dawn to Dawn-TCPL service?
- c) Why does Enbridge Gas believe that a marginal reduction of \$0.5 million (as compared to the total revenue requirement of Enbridge Gas) should be made on a revenue neutral basis?

B.Staff.4

Ref: Exhibit B, Tab 1, Schedule 1, Appendix C: Cost Allocation Study, Table 1, pp. 29-30

Enbridge Gas has proposed to implement the cost allocation methodology changes approved as a result of the cost allocation study directive with its next rebasing proceeding. Enbridge Gas notes that should rates be adjusted based on the 2019 cost allocation study in 2021 and again in 2024 at rebasing, customers would be subject to unpredictable rate changes within a short three-year time period, with some rate classes experiencing a rate increase and others experiencing a rate decrease. In the event that the OEB determines that Enbridge Gas's cost allocation proposals should be implemented prior to its next rebasing application, then Enbridge Gas has proposed that this should be done as part of the 2021 rate application. This will allow time for all appropriate adjustments to be calculated, explained and approved.

- a) In the MAADs Decision, the OEB expressed concern about cost allocation issues with respect to the impact of Union Gas's capital pass-through projects during the 2014-2018 IRM term. Accordingly, Enbridge Gas was required to provide a cost allocation update for the Union Gas rate zone as part of the 2020 rate proceeding. Is Enbridge Gas of the opinion that the OEB required a cost allocation update for information purposes only? Please provide a detailed response.
- b) Please explain why the cost allocation changes cannot be implemented in this application considering that there is an interrogatory process in this application for the cost allocation evidence and sufficient time to implement the changes in this application.
- c) Please provide rate impacts for the rate classes 01, 10, M1 and M2 if the cost allocation changes are implemented in this application. Please include only the impact of cost allocation in the rate impact calculation.

Incremental Capital Module

B.Staff.5

Ref: Exhibit B, Tab 2, Schedule 1, pp. 15-18

Enbridge Gas has requested incremental capital module (ICM) funding for the Don River Replacement Project. The project is needed to replace approximately 0.25 km of NPS 30 XHP on the Don River Bridge crossing with a new NPS 30 XHP under the Don River. The project was approved in the EB-2018-0108 leave to construct application. In the 2019 rates application

(EB-2018-0305), Enbridge Gas requested ICM funding for the Don River Replacement Project but based on the ICM materiality threshold calculation there was no room for ICM funding in the EGD rate zone. However, the project was postponed and is now scheduled to be put into service in May 2020. The total capital cost of the project is \$35.4 million which is the same as that identified in the 2019 rates application. In response to an undertaking (JT1.7) in the 2019 rates application, Enbridge Gas noted that the total indirect overhead costs allocated to the project was \$9.4 million or 36.4% of the total costs.

- a) Please confirm that the total indirect overheads costs are the same in 2020 as identified in JT1.7.
- b) Please use the 2019 total overheads and capital projects that were allocated indirect overheads to substantiate an indirect overhead cost allocation of 36.4% for 2019 capital projects. Please provide supporting numbers to show the calculation.

B.Staff.6

Ref: Exhibit B, Tab 2, Schedule 1, pp. 15 and 19

Enbridge Gas requested ICM funding for the Windsor Pipeline Replacement Project. The project will replace approximately 64 kms of existing Windsor NPS 10 pipeline (and some short sections of NPS 8) located in the Municipality of Chatham-Kent and County of Essex with NPS 6 pipeline operating at a pressure of 3,450 kpa. The evidence notes that the proposed pipeline is necessary to replace the existing pipeline due to integrity concerns. The total capital spend in 2020 is \$91.9 million of which Enbridge Gas has requested \$84.2 million in ICM funding.

- a) Please provide a breakdown of the project costs including a breakdown of indirect overheads.

B.Staff.7

Ref: Exhibit B, Tab 2, Schedule 1, p. 19

Enbridge Gas filed a leave to construct application with the OEB for the Windsor Pipeline Replacement Project on August 9, 2019 (EB-2019-0172). The application is currently before the OEB and a decision on this application has not yet been issued. In this application, Enbridge Gas has requested ICM funding for the project. The OEB's policy states that an ICM

is intended to address the treatment of a distributor's capital investment needs that arise during the Price Cap IR rate-setting plan which are incremental to a materiality threshold (*Report of the Board: New Policy Options for the Funding of Capital Investments: The Advanced Capital Module, EB-2014-0129, September 18, 2014*). An ICM must meet tests for materiality, need and prudence.

- a) Please explain how the OEB can approve ICM funding for the project prior to approval of the Windsor Line Replacement leave to construct application where the need and prudence of the project will be examined.

eBilling

B.Staff.8

Ref: eBilling, Exhibit B, Tab 3, Schedule 1, p. 1

Enbridge Gas changed its eBill practices in 2019 to make eBill the default billing method for new customers and to switch existing paper bill customers who, for any reason, had previously provided an email address to the Company without prior specific consent. Enbridge Gas believes that its change in practice is appropriate and does not believe that any OEB approval was or is required.

- a) Please explain why Enbridge Gas is of the opinion that it does not require approval of the OEB to involuntarily switch customers from paper bills to eBills.

B.Staff.9

Ref: eBilling, Exhibit B, Tab 3, Schedule 1, p. 4

Given customers' evolving expectations, Enbridge Gas has been working to shift as many interactions as possible away from traditional channels (i.e. phone calls, paper bills, letters) to a consumer-centric digital experience (i.e. myAccount, email, text, chat, social media). Prioritizing the use of modern channels of communication is critical to creating an optimal customer experience in line with consumer expectations, as well as driving long-term value for ratepayers by reducing Enbridge Gas's cost-to-serve.

- a) Please advise if Enbridge has undertaken a consumer-focused research or consultation with consumers or consumer groups in Ontario that support these statements.

B.Staff.10

Ref: eBilling, Exhibit B, Tab 3, Schedule 1, p. 11

The evidence states that Enbridge Gas is now using sophisticated machine learning and artificial intelligence to estimate consumption in months without an actual read.

- a) Please explain how Enbridge Gas uses machine learning and artificial intelligence to estimate consumption without an actual read.
- b) Does Enbridge Gas have any data demonstrating positive changes to accuracy of estimated readings using the new approach? If so, please file supporting evidence.

B.Staff.11

Ref: eBilling, Exhibit B, Tab 3, Schedule 1, pp. 18-19

Within the Enbridge Gas Distribution (EGD) rate zone, 331,480 active customers with an e-mail address in Enbridge Gas's Customer Information System (CIS) were converted to eBill over the course of 2019. In the first phase in February 2019, 147,756 customers were converted, and they received both a letter and email informing them of the switch to eBilling. Both communications made it clear that if customers wished to revert back to paper they simply needed to contact the Company via the Enbridge Gas call centre.

- a) Please indicate if Enbridge Gas required customers to respond to the email sent to them informing them of the switch to eBilling in order to validate and acknowledge the receipt of the notice.
- b) Please explain how Enbridge Gas ensured that the email address used for the purpose of eBilling was the primary email used by the customer and was the customer's preferred email address.
- c) Please explain the amount of notice given to customers that they would be transferred to eBilling and the rationale for determining the length of notice given.
- d) Please explain Enbridge Gas's process for transferring customers back to paper bills (e.g., are customers sent replacement paper bills or are they transferred to paper billing

for their next upcoming billing period?).

- e) Please explain how Enbridge Gas ensures that customers who revert back to paper billing may not be subsequently transferred to eBilling (given that their email addresses may remain on file).

B.Staff.12

Ref: eBilling, Exhibit B, Tab 3, Schedule 1, pp. 18

In the second phase in March 2019, customers only received an email. In this phase, 103,359 customers were converted. The final phase undertaken in October 2019, with 107,269 customers being converted in the same manner.

- a) Please explain the rationale for not providing a letter in addition to an email to customers in the second phase and the third (final) phase.
- b) Please provide a breakdown per phase (i.e., for each of the first phase, second phase and third phase) of the number of customers who chose to revert back to paper bill.

B.Staff.13

Ref: eBilling, Exhibit B, Tab 3, Schedule 1, pp. 19-20

Enbridge Gas has provided the percentage of total eBill customers by rate class for the EGD and Union Gas rate zones for 2019. The distribution of customers on eBill is skewed towards residential customers given they represent a majority of the customers for both legacy utilities.

- a) Please confirm if commercial customers were also involuntarily switched to eBilling in 2019 (for commercial customers who had provided an email address to both legacy utilities).
- b) Please explain the reasons for the low adoption/conversion to eBilling (1%) for Union Gas commercial customers.

B.Staff.14

Ref: eBilling, Exhibit B, Tab 3, Schedule 1, pp. 20-22

Given the scale of eBill transition, Enbridge Gas experienced increased call and complaint volume relating to eBilling in 2019. In 2019, Enbridge Gas received 55,949 calls in the EGD rate zone relating to eBills and 28,061 calls in the Union Gas rate zones. These figures capture all live, inbound calls related to eBill including routine questions (i.e. the figures do not represent customer complaints).

- a) For each of the first, second, and third phase, please provide the total number of calls (for both EGD and Union Gas) that specifically related to customers not knowing that they have been switched to eBilling, customers that called to complain about late payment penalties related to eBills and customers who did not want eBills. Of these, how many customers were switched back to paper bills?
- b) For those customers that called to complain about eBills, please provide the general themes of the complaints.
- c) For each of the first, second, and third phase, please provide the number of customers with previously demonstrated good payment history, that were converted to eBills, and who subsequently:
 - a. fell into arrears,
 - b. received a collection notice,
 - c. received a disconnection notice, and
 - d. were disconnected.
- d) Of those customers in c), how many called to advise they were not aware that they had been converted to eBills?

B.Staff.15

Ref: eBilling, Exhibit B, Tab 3, Schedule 1, p. 21

In 2019, ombudsman complaints related to eBill rose to 8.5% from 1.9% in 2018 of all complaints in the EGD rate zone while in the Union Gas rate zone, ombudsman complaints increased from 0.6% in 2018 to 9% in 2019.

- a) Please explain under what conditions a complaint about eBilling would be escalated to the ombudsman office. Please provide examples.

- b) Please provide the general themes of the complaints about eBilling that were escalated to the ombudsman office.

B.Staff.16

Ref: eBilling, Exhibit B, Tab 3, Schedule 1, p. 23-24

Regarding customer service as measured using Net Promotor Score (NPS), the evidence in Figure 5 shows that overall customer satisfaction has significantly improved alongside implementation of Enbridge Gas's 2019 eBill practices.

Though overall customer satisfaction experienced a short-term decrease in early 2019, a number of factors influenced customers at this time as EGD and Union Gas entered the first few months of their amalgamation. In particular, the decrease in NPS shown in April 2019 was largely driven by customer confusion resulting from the rebranding of legacy Union Gas, in addition to some challenges in April and May of 2019 relating to the direction of payments to the appropriate legal entity. These temporary impacts aside, NPS has experienced a steady upward trend over the past 18 months. By the time that the 2019 eBill conversions were completed, NPS was at its highest level in the recent past.

- (a) Please extend the view in Figure 5 to the most recent five year period (i.e., 2015-2019) to provide context to the NPS changes seen since March 2018.
- (b) Please confirm if it is Enbridge Gas's position that the steady upward trend in NPS over the past 18 months is related to eBill adoption. Please provide rationale to support the position.

B.Staff.17

Ref: eBilling, Exhibit B, Tab 3, Schedule 1, p. 25

Additionally, as stipulated in the Settlement Proposal, Enbridge Gas has agreed to refund Late Payment Penalty (LPP) amounts paid by customers converted to eBilling in 2019 where such customers had previously demonstrated good payment history. In the Union Gas rate zones, Enbridge Gas will refund \$289,240 in LPP to customers; representing 5% of all LPP amounts paid from March through November of 2019. In the EGD rate zones, Enbridge Gas will refund \$446,242 in LPP to customers; representing 4% of all LPP amounts paid over the same time

period.

- a) Regarding the \$289,240 in LPP, please provide the total amount of arrears and the total number of customers with otherwise good payment history that this relates to.
- b) Regarding the \$446,242 in LPP, please provide the total amount of arrears and the total number of customers with otherwise good payment history that this relates to.

B.Staff.18

Ref: eBilling, Exhibit B, Tab 3, Schedule 1, p. 25-26

The cost difference between paper billing and eBilling is approximately \$10 per customer per year. As Enbridge Gas continues to transition customers to eBill, Enbridge Gas's total postage budget will continue to decrease, however this expenditure remains significant at over \$15 million annually.

Both EGD and Union began offering eBill options over ten years ago. Taking into account present day bill production and postage costs, Enbridge Gas estimates the total bill production budget including postage absent eBilling would be close to \$45 million annually. Having now reached 58% eBill adoption, the current combined cost of paper and digital bill delivery is approximately \$28 million annually, resulting in savings of approximately \$17 million on this item alone.

- a) What was the combined cost of paper and digital bill delivery / savings when eBill adoption was at 40% (December 2018).

Exhibit C: Enbridge Gas Asset Management Plan Addendum - 2020

C.Staff.19

Ref: Exhibit C, Tab 1, Schedule 1, Appendix A: EGD Asset Management Plan, section 5.4.15.2 and Wells Upgrade, Business Case ID: 6376

Wells at Crowland are much older than other wells. Due to age, the wells were constructed to a production standard which would normally be retired after 10 years. Instead the wells were converted to storage service in the early 1970's and continue to operate ever since. Many

wells have been relined, increasing the risk of leaks. Most wells possess only two casings – the current standard requires a minimum of three, and also do not possess a suitable master valve and wellhead. Replacement of well assets at Crowland is expected to be a significant capital request within the scope of the 10-year Asset Management Plan.

In response to OEB staff interrogatory #53 in EB-2018-0305, Enbridge Gas indicated that the total costs related to upgrade and maintenance of Crowland wells and field lines is \$11,648,000 and \$3,457,000 respectively. Station upgrades are not included in the maintenance capital portfolio, because the scope and cost are unclear. An updated financial assessment will be completed in 2019 when additional information is available.

- a) Please confirm if the updated financial assessment has been completed and please provide the outcome of the financial assessment including updated costs.
- b) What is the total storage capacity of the Crowland wells?
- c) In OEB staff interrogatory #53 (EB-2018-0305), Enbridge Gas indicated that additional analyses of various options to manage Crowland were underway. Please confirm if the additional analyses has been completed and provide the results of the analyses.
- d) Considering that the amalgamated utility has significant storage, has Enbridge Gas considered other options such as abandoning the Crowland wells? If no, why not?

C.Staff.20

Ref: Exhibit C, Tab 1, Schedule 1, Appendix A: EGD Asset Management Plan, Section 5.8 – Technology and Information Services

The Technology Information Services (TIS) asset class includes the hardware, software and communications subclasses. Software assets consist of packaged applications (purchased from and generally supported by a vendor), developed applications (custom built in-house) and application infrastructure software.

In response to OEB staff interrogatory 67 in EB-2018-0305, Enbridge Gas indicated that it had not yet completed a detailed review of the EGD and Union Gas rate zones' Information Technology (IT) business applications. The plan is currently under development and is expected to be completed by the end of 2019.

- a) Please confirm if the review of EGD and Union Gas's IT business applications is

complete. If the review has been completed, please provide the outcome. If not, please provide reasons for the delay.

- b) Has Enbridge Gas changed or modified any of its planned capital expenditures with respect to IT business applications based on the outcome of the review? If yes, please identify the changes. If there are no changes to the planned capital expenditures, please provide reasons.

C.Staff.21

Ref: Exhibit C, Tab 1, Schedule 1, Appendix B: Union Gas Rate Zones Asset Management Plan, section 2.6, p. 194

Minimum Operating Pressure (MOP) verification is the process of reviewing all existing records for a pipeline system and confirming the maximum operating pressure of pipelines that are greater than 30 percent SMYS. While this is not currently mandated by code in Canada, it is required in the United States and is expected to become a requirement in Canada in the future. Given that Union Gas has approximately 2,980 km of pipelines greater than 30 percent SMYS, MOP verification will be a multi-year project requiring a dedicated team to complete the verifications and determine if any pipeline remediation is required. The intent of the MOP verification program is to spread the verifications over several years to keep costs down and mitigate the need for higher expenditures in a shorter time frame to meet these expected future mandated requirements.

- a) In EB-2018-0305, Enbridge Gas indicated (OEB staff IR#65) that it does not know when the verification will become a requirement in Canada. Please indicate if Enbridge Gas has updated information on when MOP verification will become a requirement in Canada.
- b) The total capital expenditure for this program is \$30 million from 2023 to 2028. Please explain why ratepayers should pay for a verification program that is not yet a requirement in Canada.
- c) Does Enbridge Gas intend to proceed with the verification program if it does not become a requirement by 2023? Please explain your response.
- d) In response to OEB staff IR#65e (EB-2018-0305), Enbridge Gas indicated that if the verification program is implemented in Canada, the Canadian authorities will give sufficient time to utilities to implement the verification process. Please explain why Enbridge Gas cannot defer the implementation of the program until it becomes a

requirement in Canada.

C.Staff.22

Ref: Exhibit C, Tab 1, Schedule 1, Appendix B: Union Gas Asset Management Plan, section 4.1, p. 205

Dawn C Plant is one of the nine centrifugal compressors located at the Dawn Compressor Station. Siemens, the original equipment manufacturer of the Dawn C compressor, has indicated that 40 years is the typical timeframe over which they support supply of engine parts required to recover from a critical engine failure or to complete recommended overhauls. Dawn Plant C was installed in 1984 and the RB211-24A engine is reaching end of life. The engine has non-standard dimensions and cannot be retrofitted with more modern editions of the RB-211 without significant plant retrofits. As the entire plant is out of specification in terms of the new standard compressor station designs, it is recommended that Plant C be replaced in its entirety. The cost of a new RB211 DLE plant is estimated at \$155.9 million. Design is proposed to begin in 2022 with an in-service date of 2024 and abandonment of the obsolete Plant C structures in 2025.

- a) Please provide the total estimated cost of the project including the new engine, installation, new structures and cost of existing engine removal and abandonment of Plant C structures.

C.Staff.23

Ref: Exhibit C, Tab 1, Schedule 1, Appendix B: Union Gas Asset Management Plan, section 9.1, p. 255

The legacy Union Gas uses a Banner Enlogix customer information system (CIS) to provide billing services for 1.4 million non-contract general use customers. The software was implemented across Union Gas in 2000. Banner is the system of record for customer, premise, account, service and meter information, and all related processes. Enbridge Gas has planned capital expenditures to enhance certain services and implement a major life cycle replacement from 2024 through to 2027.

- a) Please indicate if the legacy EGD and Union Gas intend to operate separate CIS for the

foreseeable future (2025 and beyond).

- b) Has Enbridge Gas considered integrating the CIS for the EGD and Union Gas rate zones? If no, why not?
- c) Please explain why Enbridge Gas intends to implement a major life cycle replacement of the Union Gas CIS starting in 2024 considering that it has sufficient time until 2024 to consider and implement a common CIS platform across the legacy utilities.

C.Staff.24

Ref: Exhibit C, Tab 1, Schedule 1, Appendix B: Union Gas Asset Management Plan, section 9.3, p. 257

The Construction Administration Records Systems (CARS) application is a legacy Union Gas application used to manage construction work orders used for new customer service lateral attachments. This application consists of an internally based application, an Internet facing application (GetConnected) as well as the business to business component. It was developed in-house in 2009. The underlying technologies are aging and it is becoming increasingly difficult to enhance and support the application. The evidence states that Union Gas intends to consider an off-the-shelf solution rather than custom-built solutions as part of the lifecycle projects. The total capital expenditure for the project is \$27.9 million. During 2021 to 2024, CARS will have a major lifecycle replacement to ensure it continues to operate effectively.

- a) Are effective off-the-shelf solutions available to replace CARS?
- b) What software application is currently used by the legacy EGD to manage construction work orders and perform similar functions as CARS?
- c) Is the legacy EGD software a custom-built solution or an off-the-shelf product and when is it expected to undergo a major lifecycle replacement?
- d) Has Enbridge Gas considered a common application to manage construction work orders and related processes for the legacy EGD and Union Gas rate zones? If no, why not?
- e) Has Enbridge Gas reviewed all software applications that are expected to undergo a major lifecycle replacement in the next three years and planned to harmonize the replacement software applications across the legacy EGD and Union Gas rate zones? If yes, please provide a detailed response including results of the review. If not, please indicate when such a review will be completed?

C.Staff.25

Ref: Exhibit C, Tab 1, Schedule 1, Appendix C: List of EGD Rate Zone Business Cases, ID: 10088 and ID:1796

Enbridge Gas has provided a business case to replace vintage steel main from Cherry street to Bathurst in Toronto. The project is scheduled for replacement in 2021. Two options were identified with the same risks and Lifetime Risk Return on Investment (LRROI). The cost for option 1 is approximately \$150 million and for option 2, the cost is \$165 million. Enbridge Gas has selected option 2 but has not provided any reasons for selecting the more expensive option.

Similarly, for the Brampton Operations Centre alterations, Enbridge Gas has selected the more expensive option to add a 9,000 square foot expansion to the existing building. In this case option 1 was selected which is estimated to cost \$9.325 million with a LRROI of 74. Option 1 is estimated to cost \$8.240 million and has a higher LRROI at 84.

- a) Please explain why Enbridge Gas has selected option 2 for the vintage steel main replacement (Cherry to Bathurst) considering that both options have similar risk mitigation (number of customers at risk) and LRROI.
- b) Please explain why Enbridge Gas has selected option 1 for the Brampton Operations Centre alterations considering that option 2 has the same risk mitigation but lower capital costs and higher LRROI.

Exhibit E – Report on Unaccounted for Gas

E.Staff.26

Ref: Report on Unaccounted for Gas (UFG), p.6

The report provides a figure (2A) showing the breakdown of primary sources of UFG for the legacy Union Gas rate zones. The largest contributor to UFG is unknown or unexplained.

- a) Please confirm that the figure shows the breakdown for both the Union South and Union North rate zones.
- b) The Unknown/Unexplained is the largest contributor to UFG. Please explain if any additional information was sought by ScottMadden on this issue or if there was any additional analysis conducted to understand the unknown/unexplained sources of UFG.

- c) Please explain why the report does not believe that further investigation is required to understand the largest contributor (unknown/unexplained) to UFG.

E.Staff.27

Ref: Report on Unaccounted for Gas (UFG), p.9

Based on the report findings, ScottMadden has made certain recommendations.

- a) Does Enbridge Gas intend to implement all the recommendations of ScottMadden? Please provide a detailed response including any timelines for implementation.

E.Staff.28

Ref: Report on Unaccounted for Gas (UFG), p.16

The report indicates that over the past 10 years the legacy companies (Union Gas and Enbridge Gas Distribution) demonstrated lower UFG levels than any group of U.S. and Canadian gas utilities reviewed by ScottMadden. Specifically, the UFG levels for legacy Union and legacy Enbridge Gas Distribution (EGD) averaged, respectively, 0.31 percent and 0.81 percent of total sendout.

- a) Did the report try to further investigate or explore the reasons for the lower UFG levels in the Union Gas rate zone versus the EGD rate zone? If no, please explain why.
- b) Please explain why the UFG level for the Union Gas rate zone is lower than EGD considering that the franchise area for Union Gas is much larger than EGD.
- c) What measures will Enbridge Gas adopt to ensure that the UFG level of EGD is closer to or lower than the legacy Union Gas rate zone?

E.Staff.29

Ref: Report on Unaccounted for Gas (UFG), pp. 20-21

Figures 8 and 9 provide a breakdown of the sources of UFG for the legacy Union Gas and EGD rate zones.

- a) The largest contributor to UFG for EGD is Gate Station Meter Variation. Please explain the significant variance in the contribution of Gas Station meters to UFG for EGD versus the Union Gas rate zone (0.33% for EGD versus 0.01% for Union Gas).
- b) What steps does Enbridge Gas intend to implement to reduce the contribution of Gas Station meter variation to UFG for the EGD rate zone?

E.Staff.30

Ref: Report on Unaccounted for Gas (UFG), pp. 24-27

The report provides data for fugitive emissions and natural gas leaks for the legacy Union Gas and EGD rate zones that is submitted to Environment Canada (figures 11 and 12). Although leaks and fugitive emission has reduced for the Union Gas rate zone, from approximately $17 \times 10^6 \text{ m}^3$ in 2015 to $8 \times 10^6 \text{ m}^3$ in 2018, there is no measurable reduction in the EGD rate zone during this period.

- a) Please explain how Union Gas has succeeded in reducing natural gas leaks and fugitive emissions while EGD has not been able to achieve similar outcomes.
- b) What measures does Enbridge Gas intend to implement to ensure that natural gas leaks and fugitive emissions are significantly reduced for the EGD rate zone. Please provide a detailed response including estimated timelines and target reductions.

E.Staff.31

Ref: Report on Unaccounted for Gas (UFG), p. 43

With respect to company use of natural gas, the report found that Enbridge Gas has an ongoing effort to identify and standardize “best practices” across the legacy companies.

- a) Please describe the “best practices” and the measures in place to implement these best practices across legacy Union Gas and EGD.