Ontario Energy Board | Commission de l'énergie de l'Ontario

BY EMAIL

December 14, 2020

Ms. Christine Long
Registrar Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4
registrar@oeb.ca

Dear Ms. Long:

Re: Ontario Energy Board (OEB) Staff Submission
Enbridge Gas Inc. London Lines Replacement Project
Ontario Energy Board File Number: EB-2020-0192

In accordance with Procedural Order No. 1, please find attached the OEB staff submission in the above proceeding. The attached document has been forwarded to Enbridge Gas Inc. and to all other registered parties to this proceeding.

Yours truly,

Original Signed By

Zora Crnojacki
Project Advisor, Natural Gas Applications

Encl.

ONTARIO ENERGY BOARD

OEB Staff Submission

EB-2020-0192

December 14, 2020

Introduction

On September 2, 2020 Enbridge Gas Inc. (Enbridge Gas) filed an application with the Ontario Energy Board (OEB) seeking orders for the following:

(a) Under section 90(1) of the *Ontario Energy Board Act, 1998* (Act), leave to construct 90.5 kilometres of pipelines consisting of approximately 51.5 kilometres (km) of 4 inch diameter (NPS 4) pipeline and 30.6 km of 6 inch diameter (NPS 6) pipeline to replace the existing London Lines and of 8.4 km of NPS 6 additional new pipeline from the Strathroy Gate Station to a tie-in at the main NPS 6 pipeline. (London Lines Replacement Project or the Project). The Project is located in the County of Lambton; the Township of Dawn-Euphemia; Middlesex County; the Municipality of Southwest Middlesex; the Municipality of Strathroy-Caradoc; and the Municipality of Middlesex Centre.

(b) Under section 97 of the Act, approval of the form of easement agreements to be offered to landowners of the properties affected by the route and construction of the Project.

OEB staff submits that the OEB should approve Enbridge Gas's London Lines Replacement Project subject to the conditions of approval proposed by OEB staff as attached as Appendix A to this document.

This submission begins with a description of the Project and the OEB hearing process. OEB staff will then address the following public interest issues:

- Need
- Alternatives
- Project Economics
- Environmental Matters
- Land Matters
- Indigenous Consultation

The Project

Enbridge Gas estimated the total Project cost at $132.9 million for the pipelines, stations and services. Enbridge Gas seeks approval in the current application for the pipelines portion of the capital costs of the Project which are estimated at $95.2 million.

The proposed pipelines would replace the existing London Lines which consist of London South Line and London Dominion Line (Existing Pipelines). The Existing Pipelines are comprised of two parallel pipelines of 8 inch,10 inch and 12 inch diameters with a maximum operating pressure (MOP) of 1,900 kPa. If the Project is

approved, it will result in the abandonment of 135 km of the Existing Pipelines – specifically, the 60 km London South Line and 75 km of the London Dominion Line. In addition to the replacement pipelines, the Project's 90.5 km of pipelines include a new 6 inch diameter, 8.4 km long pipeline from the Strathroy Gate Station to a tie-in at the 6 inch main pipeline. This pipeline is not a replacement and is entirely an addition to the system.

Enbridge Gas states that the Project is primarily needed to address integrity issues with the London Lines System. The Project also "…Provides replacement capacity for the current London Lines while also providing reliability of supply for emergency and operational scenarios in summer and shoulder month conditions"[1].

The location of the Existing Pipelines and the proposed London Lines within Enbridge Gas's system is shown in the schematic below.

The London Lines are among the oldest in the Enbridge Gas distribution system dating back to 1935 and 1936 (London South Line) and were partially replaced in 1952 (London Dominion Line). Enbridge Gas assessed the condition of these pipelines according to the Canadian Standards Association, *CSA Z662 Oil and Gas Systems Standard* (CSA Z662) requirements. The results of the assessments indicate multiple operational risks in the London Lines which compromise the integrity of the system and

[1] Exhibit B, Tab 2, Schedule 5, page 1: Summary of Alternatives

need to be addressed. The map below shows the vintage and coating of the London Lines.

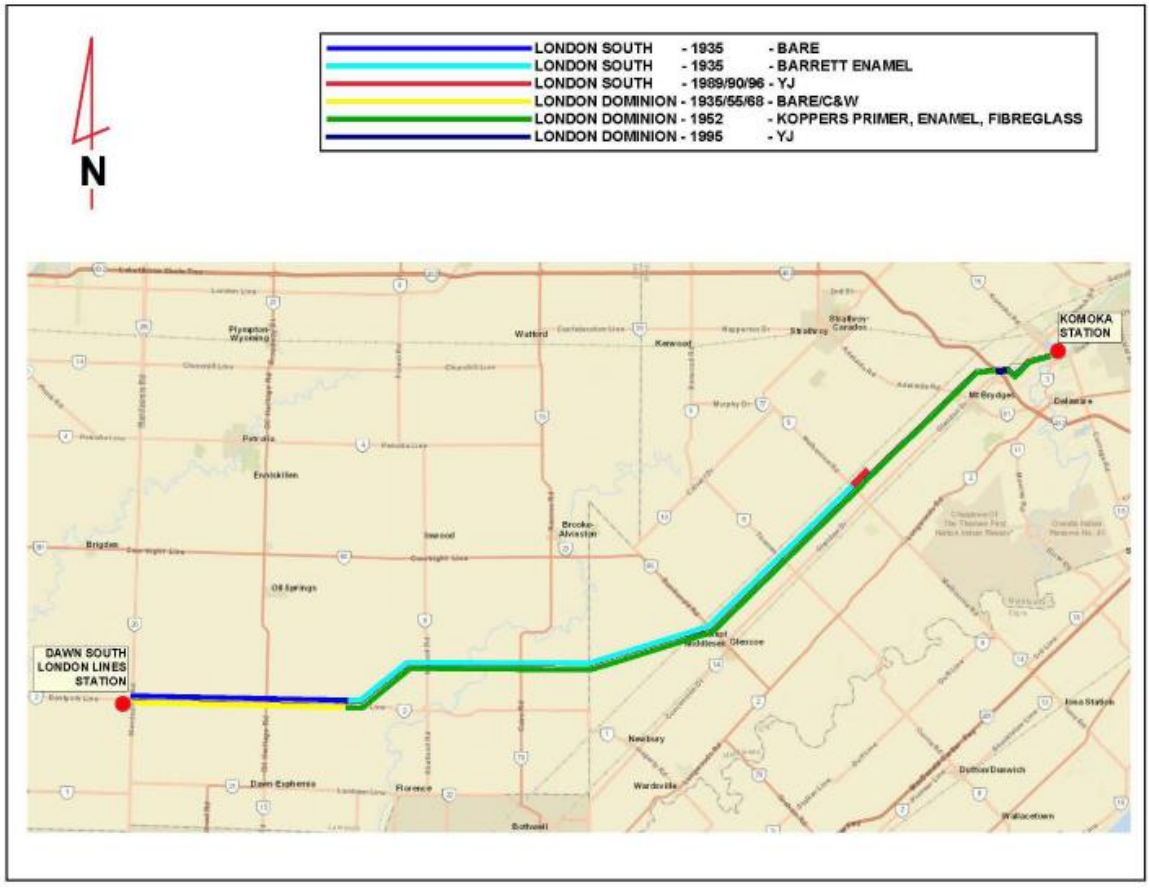


Figure 1: Graphical depiction of the year of installation and coating of the pipelines.

The proposed pipelines will be designed and constructed in accordance with Ontario Regulation 210/01 of the *Technical Standards and Safety Act 2000, Oil and Gas Pipeline Systems* (O. Reg 210/01) and with applicable current edition of CSA Z662. The Technical Standards and Safety Authority (TSSA) oversees the O. Reg 210/01 and CSA Z662 requirements.

Abandonment of the Existing Pipelines

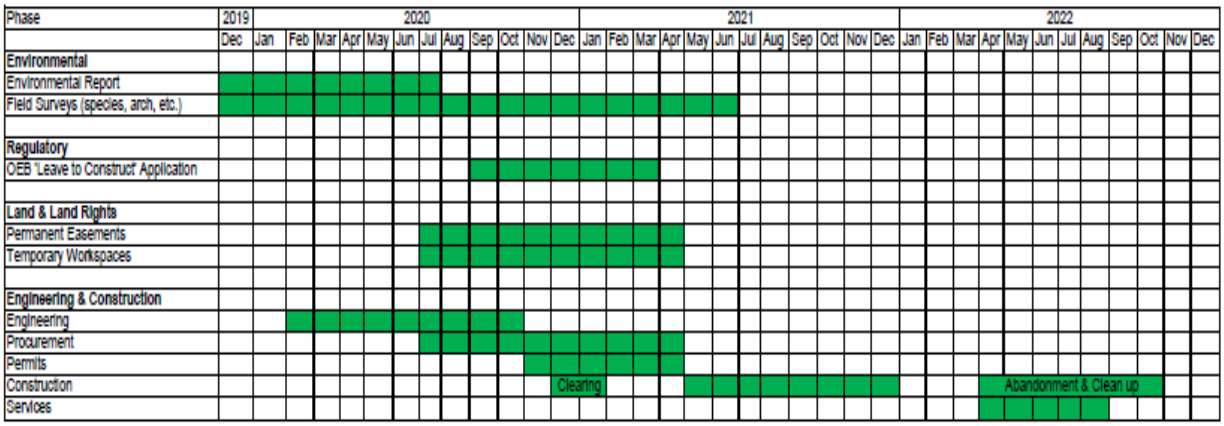
Enbridge Gas proposes to abandon the Existing Pipelines in place at road and water crossings, environmentally sensitive locations, and municipal road allowances. The exposed pipeline at 53 locations will be cut out and removed. Enbridge Gas stated that it will adhere to abandonment clauses set in the agreements for permanent easements and will seek input from the private landowners regarding the abandonment of the

pipeline on their property. Enbridge Gas stated that it will follow the municipal franchise agreements for the abandonment of the pipelines in municipal road allowances.

To maintain continued delivery of natural gas service to customers, the Existing Pipelines will remain in-service until the Project has been constructed and placed in-service.

Project Schedule

Enbridge Gas expects to commence construction of the Project in the second quarter of 2021. Enbridge Gas requested the OEB's approval by March 2021. The proposed Project schedule[2] is shown below:



The projected in-service date is November 2021. The abandonment activities are planned to start in the spring of 2022.

OEB Hearing Process

The OEB issued a Notice of Hearing on September 25, 2020. In response to the Notice of Hearing, the following parties applied for intervenor status and were approved as intervenors:

- Association of Power Producers of Ontario (APPrO)
- Building Owners and Managers Association (BOMA)
- County of Middlesex (the County of Middlesex)
- Energy Probe Research Foundation (Energy Probe)
- Environmental Defense (Environmental Defense)
- Federation of Rental-housing Providers of Ontario (FRPO)

[2] Exhibit D, Tab 1, Schedule 3

- Lupine Properties Limited (Lupine Properties)
- Pollution Probe (Pollution Probe)

On November 23, 2020 the County of Middlesex withdrew its intervention.

The OEB received four letters of comment related to the Project. OEB staff expects that Enbridge Gas will provide in its final submission its position on the matters raised in the comments and any action that it has taken or will take to address these comments.

Procedural Order No. 1, issued on October 29, 2020, set out the dates for the written proceeding including interrogatories, interrogatory responses, Enbridge Gas's argument-in-chief, submissions by OEB staff and intervenors and final reply submission by Enbridge Gas.

Project Need

Enbridge Gas states that the primary driver for the Project is the integrity and operational risk due to the deteriorating conditions of the Existing Pipelines. According to Enbridge Gas, the Project also addresses the need for additional capacity to serve new customers and to ensure reliability of supply of the London Lines System.

Enbridge Gas's Distribution Integrity Management Program (DIMP) was completed in July 2020[3] and identified multiple integrity issues and associated risks to safety and security of supply. These integrity issues include leaks or loss of containment, loss of depth of cover and pipe corrosion. They are further described below.

[3] Exhibit B, Tab 2, Schedule 1, Attachment 1 for more details on Distribution Integrity Management Program Integrity Assessment Report (dated July 21, 2020) Enbridge Gas completed for the London Lines.

The leaks or loss of containment is due to a pipeline degradation caused by external corrosion and problems with compression couplings. Compression couplings are mechanical fittings not welded to the pipeline and as such can cause pipeline leaks. Enbridge Gas monitors the leaks and repairs the leaks when identified. A 2020 leak survey identified 5 active leaks. Enbridge Gas operates the London Lines at a MOP of 1415 kPa to reduce loss of containment. Locations of the active leaks and historic leaks are presented in the schematic below.

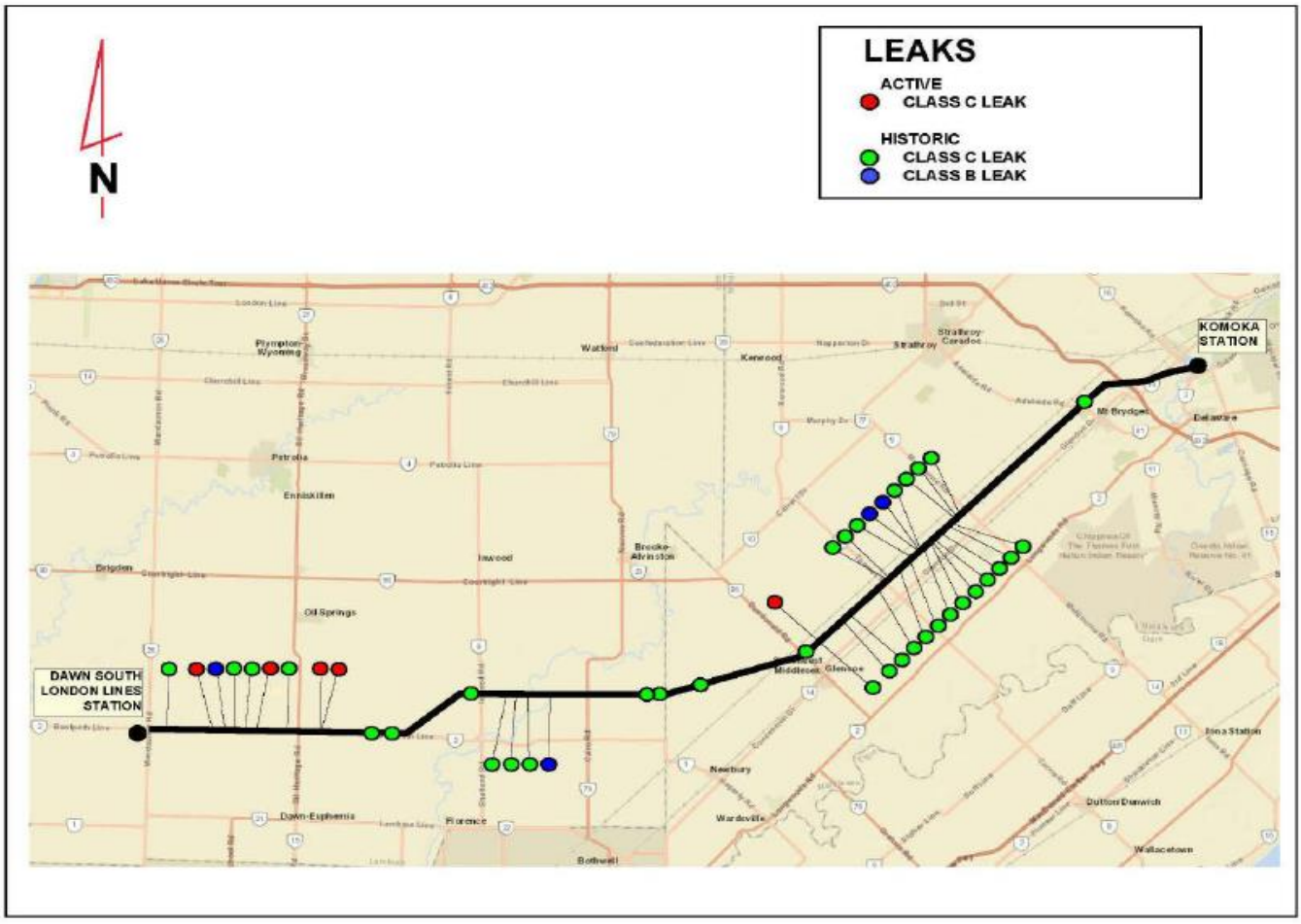


Figure 2: Active and Historical Leaks on the London Lines

Reduced depth of cover is another risk to the London Lines pipeline system integrity. Enbridge Gas recorded the depth of cover along the entire length of the London Lines in June 2020. The records show 1067 measurements of depth of cover (or 15% of all measurements) at 0.6 m or less which is below the minimum depth of cover

requirement of 0.6 m or more set in CSA Z662-15.[4]

Enbridge Gas recorded 53 locations along the London Lines where the pipeline is exposed over ditches, river crossings in agricultural fields and other locations. The 53 above ground locations of the pipeline are shown on the schematic below.

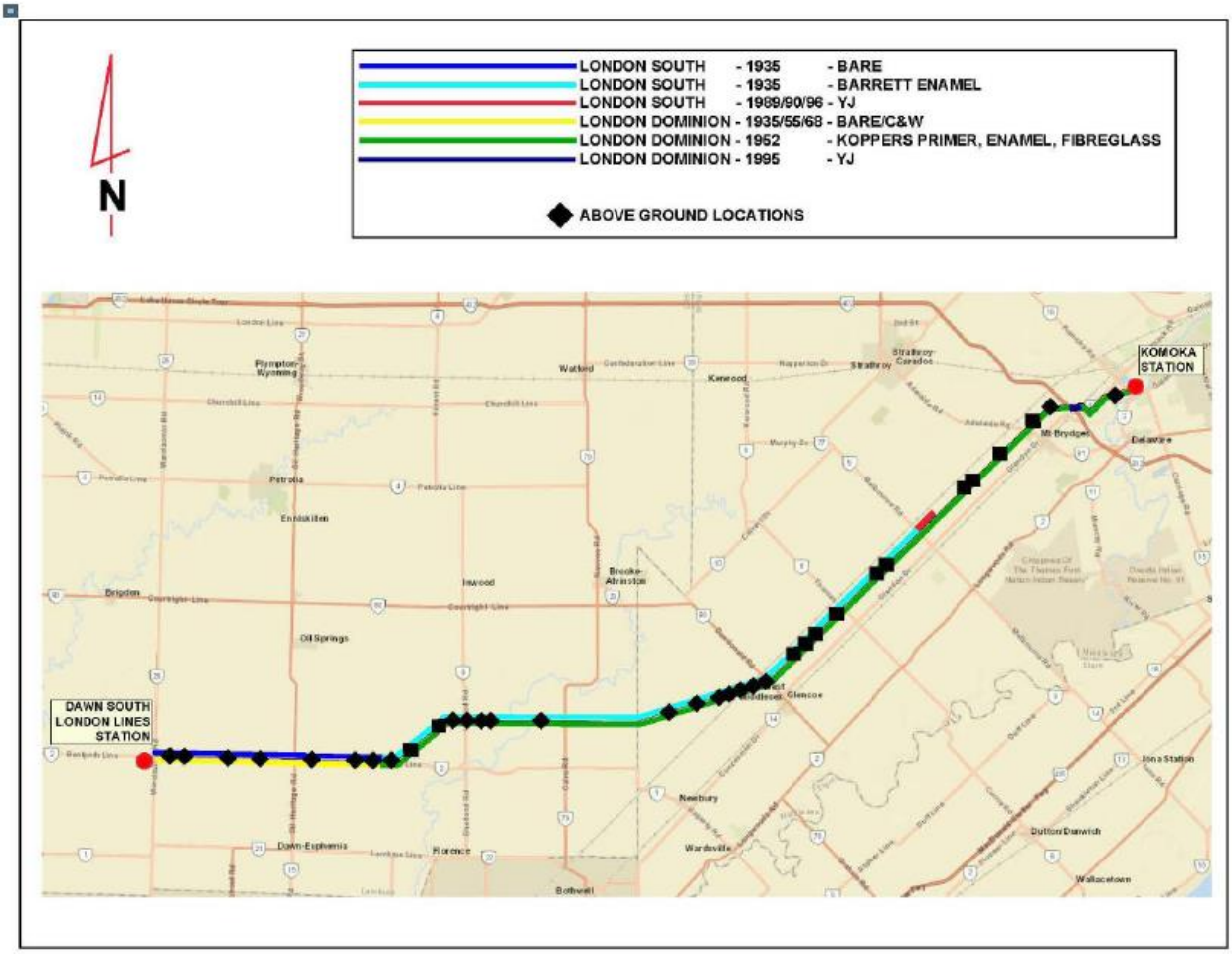


Figure 4: Locations of Above Ground Pipe, collected as part of the 2020 Depth of Cover survey

Corrosion of the pipeline walls leads to wall thickness loss causing issues during pipeline repairs and the connection of new laterals to serve additional customers. Cathodic protection, as a method to prevent corrosion, was introduced in 1965. Enbridge Gas stated that the corrosion is high across “many lengths of the pipe”.

In addition to the replacement pipelines, the Project includes a new 6 inch diameter, 8.4 km long pipeline from the Strathroy Gate Station to a tie-in at the 6 inch main pipeline at the intersection of Sutherland Road and Falconbridge Drive. According to Enbridge

[4] Enbridge Gas Inc. Evidence, Exhibit B, Tab 2, Schedule 1, page 3, paragraph 8

Gas, this new pipeline "…will provide a back-feed to the London Line corridor by adding a secondary feed from the Dawn to Parkway System via Strathroy Gate Station into the London Lines System. This back-feed also provides the opportunity to install a smaller pipe size for the replacement and provides operational flexibility in the future."[5]

Enbridge Gas also determined the need for the Project based on a qualitative risk assessment using Enbridge Gas Standardized Operational 7X7 Risk Matrix[6]. Enbridge Gas filed the Risk Assessment Report which provides details on the Operational Risk Matrix.[7] The Existing Pipelines were assessed primarily as a medium risk on the Operational Risk Matrix.[8] A summary table of the Operational Risk Matrix is presented below[9]:

	Very High	High	Medium	Low
Financial	0	0	17	1
Health and Safety	0	0	26	0
Customer Loss	0	4	10	6
Stakeholder Concerns	0	0	10	0

Table 1: Summary of risk ranked scnarios for the London Lines.

Enbridge Gas identified customer loss (i.e. loss of service for the customer) and safety of public and workers as significant consequences of a pipeline failure due to leaks, loss of cover and corrosion. Enbridge Gas stated that the safe and efficient repair of the pipeline leaks is complicated and uncertain due to the compromised physical characteristics of the pipelines (i.e. compression couplings, exposed pipeline, un-weldable flaking pipe walls).

The risk assessment shows that four segments of the Existing Pipelines have a high risk for customer loss. High risk is assessed for sections where the twin pipelines cannot be isolated independently to effectively manage customer outages on the system.

Regarding the timing of the London Lines Replacement Project, Enbridge Gas stated that it has been considering the full replacement since 2016. The need for the full replacement of the Existing Pipelines was first documented in Union Gas's (now part of Enbridge Gas) Asset Management Plan 2018-2027.[10] The Project has been assigned a

[5] Exhibit B, Tab 1, Schedule 1, Proposed Facilities, page 19, paragraph 48
[6] Filed in response to Pollution Probe interrogatory 4 c)
[7] Filed in response to FRPO interrogatory 1
[8] Enbridge Gas Argument-in-Chief, November 30, 2020, page 9, paragraph 23
[9] Exhibit B, Tab 2, Schedule 1, page 6 of 6
[10] Filed in Enbridge Gas response to Environmental Defence interrogatory 1, Attachment 3: Union Gas

priority in the current Enbridge Gas Inc. Asset Management Plan 2021-2025, dated October 5, 2020[11] which is filed as part of the supporting evidence in Enbridge Gas's 2021 Rates proceeding currently before the OEB.[12]

OEB Staff Submission

Based on the assessed risk to the physical integrity of the Existing Pipelines documented by Enbridge Gas, OEB staff submits that the Project is needed.

OEB staff notes that Enbridge Gas has been continuously monitoring and repairing multiple integrity problems in the Existing Pipelines. The Project has been identified as a priority in Enbridge Gas's Asset Management Plan 2021-2025 currently before the OEB in Enbridge Gas's 2021 Rates proceeding.

Enbridge Gas's integrity management and monitoring is in accordance with the requirements of CSA Z662. Enbridge Gas risk assessment shows a customer loss and health and safety risks for the Existing Pipelines range from high to medium. Deterioration of the Existing Pipelines has been continuous and is likely to accelerate as the infrastructure further ages. For these reasons OEB staff supports a full replacement of the Existing Pipelines in 2021 as proposed by Enbridge Gas.

Alternatives

Enbridge Gas completed a study titled "System Design Criteria for the Replacement of London Lines" [13] to assess six physical and one non-build alternatives to address the integrity risks and to provide for the forecast growth in demand of the London Lines System.

A summary of the alternatives, including the proposed Project, is provided below.[14]

Asset Management Plan 2018-2027
[11] Filed in Enbridge Gas response to Environmental Defence interrogatory 1, Attachment 1 EGI Asset Management Plan 2021-2025
[12] Enbridge Gas response to Environmental Defence interrogatory 1
[13] Exhibit B, Tab 2, Schedule 2, pages 1-15
[14] Exhibit B, Tab 2, Schedule 5, page 1 of 1

Alt #	Alternative Description	Rationale for Decision	Cost ($M)
	Proposed Project Replace with NPS 6/4 3450kPa MOP, dual fed line *(See Section 3.5.2.2 in Exhibit B, Tab 2, Schedule 2)*	Provides replacement capacity for the current London Lines while also providing reliability of supply for emergency and operational scenarios in summer and shoulder month conditions.	132.9
Alt 1	Replace with NPS 12/8 1900 kPa MOP, single fed line *(See Section 3.5.1.1 in Exhibit B, Tab 2, Schedule 2)*	Provides replacement capacity for the current London Lines, but no reliability of supply for emergency and operational scenarios. Cost is 24% higher than the proposed option.	164.7
Alt 2	Replace with NPS 10/8/6 1900 kPa MOP dual fed line *(See Section 3.5.1.2 in Exhibit B, Tab 2, Schedule 2)*	Provides replacement capacity for the current London Lines while also providing reliability of supply for emergency and operational scenarios in summer conditions but not shoulder months when construction is common. Cost is 12% higher than proposed option.	148.2
Alt 3	Replace with NPS 10/8/6 3450 kPa MOP single fed line *(See Section 3.5.2.1 in Exhibit B, Tab 2, Schedule 2)*	Provides replacement capacity for the current London Lines, but no reliability of supply for emergency and operational scenarios. Cost is 11% higher than recommended design.	146.9
Alt 4	Replace with NPS 10/8/4 1900 kPa MOP and NPS 6 420 kPa MOP dual fed line *(See Section 3.5.3.1 in Exhibit B, Tab 2, Schedule 2)*	Provides replacement capacity for the current London Lines, but no reliability of supply for emergency and operational scenarios. Cost is 8% higher than proposed design.	144.1
Alt 5	Replace with NPS 6/4 3450 kPa line, reducing proportion of NPS 6 through supplemental DSM *(See Section 3.5.5 in Exhibit B, Tab 2, Schedule 2)*	Provides capacity to serve 2021 expected demand only, while also providing reliability of supply for emergency and operational scenarios. Savings on pipeline size reduction would be exhausted by less than 2 years of supplemental DSM programming, after which continued supplemental DSM spend or pipeline reinforcement would be required.	130.0

Note: All costs shown in the above table are direct capital and abandonment costs. Interest during construction and indirect overhead costs were not included.

OTHER ALTERNATIVES CONSIDERED

Alt #	Alternative Description	Rationale for Decision
Alt 6	Obtaining supply from non-Enbridge pipelines *(See Section 3.5.4 in Exhibit B, Tab 2, Schedule 2)*	No nearby non-Enbridge pipelines or alternative sources of supply with adequate, reliable capacity to serve the system demands.

As a result of the assessment of built and non-facility alternatives, Enbridge Gas selected the Project as the best alternative as it offers the lowest cost, addresses the

integrity risks, while also providing the required capacity to serve the current and forecasted system demands.

One of the six physical alternatives is the replacement of the Existing Pipelines with NPS 6 and NPS 4 pipelines at 3450 kPa, reducing the proportion of NPS 6 through supplemental Demand Side Management (DSM) (Alternative 5).

The OEB is currently conducting a proceeding on Enbridge Gas's Integrated Resource Plan (IRP) Proposal.[15] The IRP Proposal includes DSM and other programs that may be considered as part of alternatives to pipeline projects.

Enbridge Gas, in its updated IRP Proposal, proposes that the Discounted Cash Flow (DCF) analysis method, consistent with the principles underpinning the OEB's Reports in E.B.O. 134 and E.B.O. 188, would be the basis for assessing the economic feasibility of IRP Alternatives (IRPA), including DSM.

Enbridge Gas, in response to interrogatories on DSM and IRPA to the Project, stated that it conducted a high level DSM analysis in accordance with the OEB 2015-2020 DSM Framework direction. This direction requires that as part of any application for leave to construct, utilities should file evidence on "…how DSM has been considered as an alternative at the preliminary stage of project development".[16]

The cost of Alternative 5 is estimated at $130 million while the cost of the Project is estimated at $132.9 million. However, Enbridge Gas clarified that the $130 million costs for Alternative 5 does not include $4.3 million cost of DSM. Enbridge Gas submitted that "…these costs would be further increased in the future, as any increase in demand would require additional DSM programming, and still the critical project drivers of integrity and safety would not be addressed."[17]

Enbridge Gas included in the Alternative 5 effect of DSM to reduce the demand on the London Lines which consequently reduces the pipeline diameter. Enbridge Gas's rationale for rejecting Alternative 5 is that it: "Provides capacity to serve 2021 expected demand only, while also providing reliability of supply for emergency and operational scenarios. Savings on pipeline size reduction would be exhausted by less than 2 years of supplemental DSM programming, after which continued supplemental DSM spend or pipeline reinforcement would be required."[18]

[15] EB-2020-0091
[16] Enbridge Gas response to OEB staff interrogatory 13 a) and Pollution Probe interrogatory 10
[17] Enbridge Gas response to OEB staff interrogatory 12 a)
[18] Exhibit B, Tab 2, Schedule 5, page 1

Enbridge Gas pointed out that the current IRP proceeding would consider scope of alternatives (e.g. require consideration of other forms of non-build alternatives). Enbridge Gas noted that DSM cannot address integrity and safety issues which are the main drivers for the Project's need. Enbridge Gas also noted that DSM alternatives are not economically feasible compared to the Project. Enbridge Gas noted that the additional comparative benefits of the Project include "…additional capacity in the area to deliver natural gas to new customers."[19]

OEB Staff Submission

OEB staff submits that the Project is the preferred alternative. The Project is the least-cost alternative among the alternatives assessed by Enbridge Gas. The Project addresses the integrity driven need at a reasonable cost while also providing the required capacity to serve the current and forecasted system demands.

Regarding the option of non-build IRP alternatives such as DSM or a combination of DSM and physical pipeline options, OEB staff's position is that such alternatives should be given more consideration in pipeline projects. That being said, in this particular case, because the cost for Alternative 5 (including capital cost and DSM cost) would exceed the Project cost, OEB staff does not consider Alternative 5 to be preferred compared to the Project.

However, OEB staff has concerns with several of the assumptions made by Enbridge Gas in its analysis of Alternative 5 which is a combination of reduced size pipeline and DSM. These concerns are noted below.

Enbridge Gas notes that "DSM is not relevant as it cannot address the integrity and safety drivers that underpin the need for this project".[20] In OEB staff's view, these factors should not provide a blanket exemption from consideration of DSM or other potential alternatives in LTC applications. Rather, these factors need to be considered on a case-by-case basis. In this specific application, Enbridge Gas has provided no evidence that the alternative involving DSM (Alternative 5) has higher risks to integrity or safety than the proposed Project. OEB staff expects that in future Leave to Construct applications, if Enbridge Gas believes that integrity or safety considerations preclude or limit the consideration of non-build or combined alternatives, Enbridge Gas should provide more evidence in support of this position.

While Enbridge Gas has not provided full details of its economic analysis of Alternative 5, it appears that Enbridge Gas has:

[19] Exhibit G, Tab 1, Schedule 1, Attachment 1, page 6 of 9
[20] Enbridge Gas response to Environmental Defence interrogatory 5

- Included the administrative and incentive costs of supplemental DSM, but assigned no value to the benefits realized by its customers in the form of lower gas commodity costs due to supplemental DSM.

- Assumed no focusing of DSM on measures or program types (e.g. gas demand response) most likely to reduce peak demand and enable pipeline downsizing.

OEB staff notes that the approach taken by Enbridge Gas makes it unlikely that Enbridge Gas would select an alternative including DSM or other non-build alternative as a preferred alternative to an infrastructure project. OEB staff acknowledges that more direction on how to address these issues is likely to be provided to Enbridge Gas for future projects as part of the ongoing IRP proceeding.

Project Economics

Enbridge Gas seeks approval in the current application for the capital costs of the Project which are estimated at $95.2 million.

Enbridge Gas has provided the following capital cost estimates for the proposed project[21]:

London Line Replacement Project
Total Estimated Project Capital Costs

Line No.	Particulars ($000's)	Mainline	Stations	Services	Abandonment (1)	Total
1	Materials	5,616	1,823	125	-	7,564
2	Construction and Labour	77,321	8,221	4,005	19,776	109,323
3	Contingencies	11,402	1,310	619	2,633	15,964
4	Interest During Construction	867	142	49	-	1,058
5	Estimated Incremental Project Capital Costs	95,206	11,496	4,798	22,409	133,909
6	Indirect Overhead	21,881	2,640	991	4,677	30,189
7	Total Estimated Project Capital Costs	117,087	14,136	5,789	27,086	164,098

Notes:
(1) Abandonment costs will not be included in Enbridge Gas's ICM request for rate recovery.

Enbridge Gas states that is not seeking approval for the cost estimates of the ancillary facilities (stations and services) in this application but has shown these costs in the total Project cost estimates for completeness. Enbridge Gas submitted that the rationale is that section 90 of the OEB Act does not include approval of the ancillary facilities.[22]

[21] Exhibit F, Tab 1, Schedule 1, p 1
[22] Enbridge Gas response to OEB staff interrogatory 11 a)

A Discounted Cash Flow (DCF) analysis was not completed for the Project. Enbridge Gas states that the rationale for not conducting a DCF analysis is that the Project is underpinned by the integrity requirements and will not create a significant change in capacity available on the London Lines.

Enbridge Gas expects the Project will meet the criteria for rate recovery during the deferred rebasing period through the use of the OEB's Incremental Capital Module (ICM) mechanism. Enbridge Gas has applied for the OEB's approval to recover the Project costs including the cost of ancillary facilities through ICM mechanism in its 2021 Rates Application which is currently before the OEB.[23]

In response to OEB staff interrogatories, Enbridge Gas provided a comparison of estimated and actual construction costs for similar projects that Enbridge Gas has completed in the past and that were approved by the OEB:[24]

Case #	Project Name	City	Construction Year	Pipe Size (Diameter / Material)	Length (km)	Estimated Total Costs (millions)	Estimated $/meter*	Assumed Contingency	Actual Total Costs (millions)	Actual $/meter
EB-2015-0042	Sudbury NPS 10 Replacement Project	Sudbury	2015	NPS 12 Steel	0.7	$2.023	$2,890	10%	$1.023	$1,461
EB-2016-0122	2016 Sudbury Replacement Project	Sudbury	2016	NPS 12 Steel	0.85	$2.188	$2,574	13%	$3.360	$3,953
EB-2016-0222	Sudbury Maley Replacement Project	Sudbury	2016-2017	NPS 12 Steel	2.8	$6.304	$2,251	12%	$4.206	$1,502
EB-2017-0180	2018 Sudbury Replacement Project	Sudbury	2018	NPS 12 Steel	20	$74.000	$3,700	15%	$82.616	$4,131
EB-2019-0172	Windsor Line Replacement Project	Southwestern Ontario	2020	NPS 6 Steel	64	$92.744	$1,449	15%	TBD	TBD
EB-2020-0192	London Line Replacement Project	Southwestern Ontario	2021	NPS 4 & NPS 6 Steel	90.5	$133.909	$1,480	14%	TBD	TBD

*Variations in cost per metre are signficantly influenced by specific project scope parameters (such as rural or urban setting, rock excavation, local land costs, etc).

EB-2017-0180: The 2018 Sudbury Replacement Project had large proportions of rock excavation, wetland management, a specialized Cathodic Protection design and bypass installations, which are all costly activities that are not present to the same extent or not present at all in the previously approved OEB projects as indicated in the table. It is the influence of this construction scope that has increased the cost per metre for the 2018 Sudbury Replacement Project. Estimated Total Costs for this project were later increased to $83 million.

EB-2019-0172: For comparison purposes, Estimated Total Costs as indicated in the table for the Windsor Line Replacement Project represents "Estimated Incremental Project Capital Costs" (includes Stations, Services, and IDC; excludes Indirect Overheads of $14.061 million).

EB-2020-0192: For comparison purposes, Estimated Total Costs as indicated in the table for the London Line Replacement Project represents "Estimated Incremental Project Capital Costs" (includes Stations, Services, Abandonment and IDC; excludes Indirect Overheads of $30.189 million).

The most comparable replacement project, also located in Southwestern Ontario, is the Windsor Line Replacement Project (Windsor Line)[25]. The estimated cost of Windsor Line construction is $1,449/metre which is close to the $1,480/metre cost estimate for the Project. These estimates include pipelines and ancillary facilities costs.

Enbridge Gas stated that the abandonment costs, estimated at approximately $27 million, will not be included in the ICM request for rate recovery. Enbridge Gas

[23] EB-2020-0181
[24] Enbridge Gas response to OEB staff interrogatory 11 c)
[25] EB-2019-0172

explained that as set in the *Uniform System of Accounts for Class A Gas Utilities*, Enbridge Gas recover from the ratepayers the abandonment cost of a pipeline through the depreciation charged to the ratepayers over the pipeline life. Enbridge Gas also noted that "…the actual cost of retirement will be charged to accumulated depreciation."[26]

OEB Staff Submission

OEB staff submits that the forecast Project costs seem reasonable based on a comparison of the cost of Windsor Line project which is a similar project recently approved by the OEB.

OEB staff submits that prudence of the actual capital costs for the Project will be examined by the OEB upon Enbridge Gas's filing its *Post Construction Financial Report*. OEB staff proposed a condition of approval requiring that Enbridge Gas file such a report with the OEB[27]. Enbridge Gas agreed with the proposed condition. The Post Construction Financial Report would include a variance analysis of project cost, schedule and scope compared to the estimates filed in this proceeding, including the extent to which the project contingency was utilized. Enbridge Gas would also file a copy of the Post Construction Financial Report in the proceeding where the actual capital costs of the project are proposed to be included in rate base or any proceeding where Enbridge Gas proposes to start collecting revenues associated with the Project, whichever is earlier.

OEB staff has no concerns with the estimated abandonment costs or the method of recovery of these costs.

Environmental Matters

Enbridge Gas retained Stantec Consulting Ltd. (Stantec) to complete an environmental assessment for the proposed pipeline, in accordance with the OEB's *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines in Ontario (7th edition, 2016)* (OEB Environmental Guidelines).

Stantec prepared an Environmental Report (ER) for the Project identifying the environmental and socio-economic features along the route of the proposed pipelines.

[26] Enbridge Gas response to OEB staff interrogatory 11 b)
[27] Condition 7 in the Appendix B to this submission

On July 22, 2020, the ER was made available to the Ontario Pipeline Coordinating Committee (OPCC), local Conservation Authorities, and all affected municipalities[28] for review and comments.

Stantec does not anticipate any permanent or adverse environmental impacts from the construction and operation of the Project, provided the mitigation measures recommended in the ER are followed. Enbridge Gas stated in the ER that it will prepare the Environmental Protection Plan (EPP) for the Project. Enbridge Gas will have a qualified Environmental Inspector on the construction site to assist the Project Manager with the mitigation measures and permitting requirements and conditions.[29] The EPP will incorporate the mitigation measures identified in the ER and received during the consultation with the OPCC and agencies. Enbridge Gas plans to complete the EPP prior to mobilization and construction of the Project. In response to OEB staff interrogatories, Enbridge Gas confirmed that as part of the EPP process, Enbridge Gas will develop site specific environmental management, monitoring and contingency plans in order to implement general mitigation and contingency measures identified in the ER and in the consultation process.[30]

Public consultation was conducted through a Virtual Open House which replaced the typical in-person open house events due to the COVID-19 pandemic restrictions. Twenty-five comments were received as of July 2020.

In response to OEB staff interrogatories, Enbridge Gas provided an updated summary of the comments, issues and concerns expressed by the members of the OPCC, municipalities, local Conservation Authorities and the general public, along with Enbridge Gas's actions and plans to address the concerns and resolve issues. [31] The comments were received from the Ministry of Transportation, County of Middlesex, Ministry of Heritage, Sports, Tourism and Culture Industries (MHSTCI), Ministry of Natural Resources and Forestry (MNRF), Upper Thames River Conservation Authority, and St. Clair Region Conservation Authority in addition to the comments provided by the general public. The updated summary of comments by the OPCC members and the municipalities do not include any outstanding concerns.

The County of Middlesex asked that Enbridge Gas meet and discuss matters related to the location of the pipeline within the county roads and various work permits for

[28] The County of Middlesex, the County of Lambton, the Township of Dawn-Euphemia, the Municipality of Southwest Middlesex, the Municipality of Strathroy-Caradoc and the Municipality of Middlesex Centre
[29] Exhibit C, Tab 1, Schedule 1, page 3, paragraphs 11-12 and page 4, paragraph 14
[30] Enbridge Gas response to OEB staff interrogatory 6 a)
[31] Enbridge Gas response to OEB staff interrogatory 5, Attachments 1: Correspondence Tracking-Post Environmental Report Submission OPCC and Attachment 2: Correspondence Tracking-Post Environmental Report Submission Non-OPCC

construction. Enbridge Gas was responsive and cooperative and as a result, the County of Middlesex withdrew its intervenor status from the proceeding.

Comments by other parties dealt with various permits and approvals required for the construction and operation of the Project. For example, the MTO referred to the permitting conditions (i.e. highway crossings) to be met by Enbridge Gas before construction can be permitted to start.

The ER lists environmental permits and regulatory requirements (from and of federal, provincial, and municipal governments and other entities, such as Canadian National Railway and Hydro One Networks Inc.) Enbridge Gas needs to acquire for construction and operation of the Project. Enbridge Gas, in response to OEB staff interrogatories, provided the status of each permit/approval application and expected date of acquiring each of the permits[32]. Enbridge Gas anticipates to receive all the permits by the First Quarter of 2021. Enbridge Gas does not anticipate potential delays that may affect the construction schedule for the Project.

In accordance with the requirements under the authority of the MHSTCI, Stantec conducted the initial stages of assessment and studies to protect archaeological resources, built heritage resources and cultural heritage landscapes potentially impacted by the proposed Project. Stantec completed a Stage 1 Archaeological Assessment (AA) which identified areas that have archaeological potential and require a Stage 2 AA. The final Stage 2 AA Report is expected by the Fourth Quarter of 2020.

Stantec completed a checklist of the MHSTCI *Criteria for Evaluation Potential for Built Heritage Resources and Cultural Heritage Landscapes* for the study area. Enbridge Gas expects to complete a *Cultural Heritage Evaluation Report* (CHER) and submit it to the MHSTCI for its review and comment at the beginning of 2021.[33] The MHSTCI review of the CHER Report is expected to be completed by April 1, 2021.

OEB Staff Submission

OEB staff has no concerns with the environmental aspects of the Project, given that Enbridge Gas is committed to implementing the proposed mitigation measures.

OEB staff notes that Enbridge Gas agrees with the draft Conditions of Approval proposed by OEB staff[34]. These conditions require, among other things:

[32] Enbridge Gas response to OEB staff interrogatory 7
[33] Exhibit C, Tab 5, Schedule 1, page 5, paragraphs 17 and 18 and Enbridge Gas response to OEB staff interrogatory 9
[34] Enbridge Gas response to OEB staff interrogatory 14

- completion of Environmental Protection Plan, Environmental Management Plan and Contingency Plan
- environmental reporting and monitoring
- certifying that it has obtained all approvals, permits, licences, and certificates required to construct, operate and maintain the proposed Project

Land Matters

The majority of the proposed Project will be located entirely within existing municipal road allowances in the County of Middlesex, the County of Lambton, the Township of Dawn-Euphemia, the Municipality of Southwest Middlesex, the Municipality of Strathroy-Caradoc and the Municipality of Middlesex Centre.

Enbridge Gas will need approximately 0.584 acres of permanent easement on two locations along the pipeline route. Enbridge Gas also will need to acquire approximately 114.9 acres of temporary land use rights for construction and storage of topsoil. Enbridge Gas proposes to purchase fee simple land rights for new station sites and expansion of the existing stations. [35]

Enbridge Gas filed the form of Temporary Land Use Agreement[36] and the form of Transfer of Easement Agreement[37] which were approved by the OEB in previous pipeline proceedings. In response to OEB staff interrogatories, Enbridge Gas provided more information on the form of agreements, stating: "The current Easement Agreement has changed from the one approved in File No. EB-2018-0108 in that the terms Transferor and Transferee have been changed to Owner and Company as well as a clause has been added concerning the Planning Act to remove the need for a witness to the signing of a Declaration. This Temporary Land Use Agreement was approved in EB-2019-0172, Windsor Line Replacement."[38]

Enbridge Gas advised that it has been negotiating with the landowners for the temporary and permanent land rights and stated that "…no concerns about the Project have been raised at this time."[39]

OEB Staff Submission

[35] Exhibit E, Tab 2, Schedule 2, page 8 of 9
[36] Exhibit E, Tab 2, Schedule 3
[37] Exhibit E, Tab 2, Schedule 4
[38] Enbridge Gas response to OEB staff interrogatory 4 d)
[39] Enbridge Gas response to OEB staff interrogatory 4 b)

OEB staff notes that Enbridge Gas has been negotiating with the affected landowners to obtain land rights and fee purchases for the Project.

OEB staff expects Enbridge Gas to provide, in its written reply submission, an update on prospects and timeline of negotiations for permanent easement agreements on the two locations and for temporary land rights from the landowners along the Project route. The update should include information on concerns and issues raised by the landowners, and on Enbridge Gas's current and future actions to address these concerns. Enbridge Gas should also describe, in the final submission, how it dealt with any other matters that the landowners raised regarding the Project.

OEB staff has no concerns with the forms of easement agreements submitted by Enbridge Gas for OEB approval under section 97 of the Act. OEB staff notes that these forms have been approved by the OEB in previous proceedings. OEB staff notes that these forms contain minimum requirements and that negotiations between Enbridge Gas and a landowner may result in additional or modified terms of agreement should the parties bilaterally agree.

Indigenous Consultation

In accordance with the OEB's Environmental Guidelines, Enbridge Gas contacted the Ministry of Energy, Northern Development and Mines (MENDM) in respect of the Crown's duty to consult related to the Project on December 9, 2019. By a letter dated February 26, 2020 (Delegation Letter), the MENDM delegated the procedural aspects of the Crown's Duty to Consult for the Project to Enbridge. In the Delegation Letter, the MENDM identified six Indigenous communities with which Enbridge Gas should consult in relation to the Project:

- Oneida Nations of the Thames
- Aamjiwnaang
- Caldwell
- Chippewas of Thames
- Chippewas of Kettle and Stony Point
- Bkejwanong (Walpole Island)

Each of these six Indigenous communities and the Metis Nation of Ontario (MNO) were served the Notice of Hearing for the Project, in accordance with the OEB's Letter of

Direction. No Indigenous community applied for intervenor status in the proceeding.

Enbridge Gas provided the MENDM with its Indigenous Consultation Report[40] for the Project and requested that the MENDM determine if the procedural aspects of the Duty to Consult are acceptable. The Indigenous Consultation Report includes, for each of six Indigenous communities potentially affected by the Project, the record of consultation chronology, concerns expressed, Enbridge Gas responses to questions and concerns, and information on any outstanding concerns. The information in the Indigenous Consultation Report is current as of August 31, 2020.

In response to OEB staff interrogatories, Enbridge Gas filed updated Indigenous consultation summary tables, now current as of November 16, 2020.[41] Enbridge Gas confirmed in its Argument-in-Chief that "[it] is continuing to engage with the communities in question on an ongoing basis and will address any concerns as they arise. Currently, there are no outstanding issues and concerns."[42]

Enbridge Gas stated that it is awaiting a letter of opinion from the MENDM regarding the adequacy of procedural aspects of the Duty to Consult. Enbridge Gas indicated that there are no outstanding concerns raised in the Indigenous consultation process. In responding to an OEB staff interrogatory regarding the anticipated date of obtaining a letter of opinion from the MENDM on adequacy of consultation Enbridge Gas said that it is committed to working with the MENDM "…to ensure they have information necessary to make their determination".[43]

OEB Staff Submission

OEB staff submits that Enbridge Gas has provided the requested Indigenous Consultation Report and updated consultation summary tables as requested. However, MENDM has not yet provided its opinion on the adequacy of that consultation. While the OEB is the decision maker with respect to the adequacy of consultation, OEB staff submits that the opinion of MENDM is important in this regard.

OEB staff recommends that, should the OEB determine that leave should be granted,

[40] Exhibit G, Tab 2, Schedule 1: Indigenous Consultation Report: Summary Tables and Schedule 2: Indigenous Consultation Report: Log and Project Correspondence
[41] Enbridge Gas response to OEB interrogatory 10, Attachment 1: Indigenous Consultation Report: Summary Tables
[42] Enbridge Gas, Argument-in-Chief, November 30, 2020, pages 12 and 13
[43] Enbridge Gas response to OEB staff interrogatory 10 d)

an additional condition should be added. Specifically, leave would be conditional on

Enbridge Gas filing with the OEB, a letter of opinion from the MENDM, prior to the start of construction. [44]

The proposed condition, included as a Condition 3 in the Appendix A, should read:

3 Enbridge Gas shall file with the OEB, prior to the commencement of construction, a letter of opinion from the Ministry of Energy, Northern Development and Mines (MENDM) stating that the MENDM is satisfied with the adequacy of procedural aspects of the Indigenous consultation for the Project. Leave to construct shall terminate if the letter of opinion is not filed within 12 months of the date on this Decision and Order.

- All of which is respectfully submitted -

[44] The OEB took this approach in its Decision and Order on Enbridge Gas Inc. Scugog Island LTC (EB-2017-0261), dated May 31, 2018. The OEB made its approval conditional on Enbridge Gas filing the adequacy letter prior to the commencement of construction. The MENDM's adequacy letter, dated October 1, 2018, stating it was satisfied with the procedural aspects of Indigenous consultation, was filed with the OEB prior to the commencement of construction. The project went in-service in May 2020.

Appendix A

Proposed Conditions of Approval

Leave to Construct Application under
Section 90 of the OEB Act

Enbridge Gas Inc.
EB-2020-0192
DRAFT
Conditions of Approval

1 Enbridge Gas Inc. (Enbridge Gas) shall construct the facilities and restore the land in accordance with the OEB's Decision and Order in EB-2020-0192 and these Conditions of Approval.

2 Enbridge Gas shall obtain all necessary approvals, permits, licences, certificates, agreements and rights required to construct, operate and maintain the Project.

3 Enbridge Gas shall file with the OEB, prior to the commencement of construction, a letter of opinion from the Ministry of Energy, Northern Development and Mines (MENDM) stating that the MENDM is satisfied with the adequacy of procedural aspects of the Indigenous consultation for the Project. Leave to construct shall terminate if the letter of opinion is not filed within 12 months of the date on this Decision and Order.

4 Enbridge Gas shall implement all the recommendations of the Environmental Report filed in the proceeding, and implement all commitments made in response the Ontario Pipeline Coordinating Committee member review.

5 Enbridge Gas shall notify the OEB and all parties in this proceeding, prior to the start of construction, of completion of each of Environmental Protection Plan (EPP) Environmental Management Plan (EMP), and Contingency Plan documents and make a copy of the documents available to a party upon their request.

6 (a) Authorization for leave to construct shall terminate 12 months after the decision is issued, unless construction has commenced prior to that date.

(b) Enbridge Gas shall give the OEB notice in writing of the following:

i. The commencement of construction, at least ten days prior to the date construction commences

ii. The planned in-service date, at least ten days prior to the date the facilities go into service

iii. The date on which construction was completed, no later than 10 days following the completion of construction

iv. The in-service date, no later than 10 days after the facilities go into service

7 Enbridge Gas shall advise the OEB of any proposed change in the project, including but not limited to changes in: OEB-approved construction or restoration procedures, the proposed route, construction schedule and cost, the necessary environmental assessments and approvals, and all other approvals, permits, licences, certificates and rights required to construct the proposed facilities. Except in an emergency, Enbridge Gas shall not make any such change without prior notice to and written approval of the OEB. In the event of an emergency, the OEB shall be informed immediately after the fact.

8 Concurrent with the final monitoring report referred to in Condition 8(b), Enbridge Gas shall file a Post Construction Financial Report, which shall provide a variance analysis of project cost, schedule and scope compared to the estimates filed in this proceeding, including the extent to which the project contingency was utilized. Enbridge Gas shall also file a copy of the Post Construction Financial Report in the proceeding where the actual capital costs of the project are proposed to be included in rate base or any proceeding where Enbridge Gas proposes to start collecting revenues associated with the Project, whichever is earlier.

9 Both during and after construction, Enbridge Gas shall monitor the impacts of construction, and shall file with the OEB one paper copy and one electronic (searchable PDF) version of each of the following reports:

(a) A post construction report, within three months of the in-service date, which shall:

i. Provide a certification, by a senior executive of the company of Enbridge Gas’s adherence to Condition 1

ii. Describe any impacts and outstanding concerns identified during construction

iii. Describe the actions taken or planned to be taken to prevent or mitigate any identified impacts of construction

iv. Include a log of all complaints received by Enbridge Gas, including the date/time the complaint was received, a description of the

complaint, any actions taken to address the complaint, the rationale for taking such actions

v. Provide a certification, by a senior executive of the company, that the company has obtained all other approvals, permits, licences, and certificates required to construct, operate and maintain the proposed project

(b) A final monitoring report, no later than fifteen months after the in-service date, or, where the deadline falls between December 1 and May 31, the following June 1, which shall:

i. Provide certification, by a senior executive of the company, of Enbridge
Gas's adherence to Condition 4

ii. Describe the condition of any rehabilitated land

iii. Describe the effectiveness of any such actions taken to prevent or mitigate any identified impacts of construction

iv. Include the results of analyses and monitoring programs and any recommendations arising therefrom

v. Include a log of all complaints received by Enbridge Gas, including the date/time the complaint was received, a description of the complaint, any actions taken to address the complaint, the rationale for taking such actions

10 Enbridge Gas shall designate one of its employees as project manager who will be responsible for the fulfillment of these conditions, and shall provide the employee's name and contact information to the OEB and to all the appropriate landowners, and shall clearly post the project manager's contact information in a prominent place at the construction site.