ENBRIDGE GAS INC.

Answer to Interrogatory from
Pollution Probe ("PP")

INTERROGATORY

Question:

a) Please explain why the current pipeline which was installed around 1970 has integrity issues when many other similar pipelines in the system which are significantly older (e.g. the London Line was approximately 100 years old) are able to operate for much longer.

b) Please provide a list of all in-service vintage steel pipelines installed prior to 1970 and indicate the year each was installed.

Response

a) There are several determining factors to be considered when assessing the integrity of natural gas pipelines. Although the age/vintage of pipelines is a significant determining factor, it is not necessarily as critical as the distinct stresses placed upon pipelines as a result of their unique location nor the resulting actual condition of the pipelines themselves. The integrity of each vintage steel pipeline (installed pre-1970s) should be assessed individually, based on the specific risks corresponding to that pipeline, to determine when it is reaching the end of its useful life (determined by its ability to safely and reliably deliver natural gas volumes to ratepayers).

   As outlined in the Company's Updated Application at Exhibit B, Tab 1, Schedule 1, pp. 13-34, Enbridge Gas conducted several inspection and survey programs that were used in conjunction with leak survey history to better understand the condition and integrity of the St. Laurent pipeline(s) system, which were installed in 1958. The results of those integrity works indicate that the pipeline(s) are nearing the end of their useful lives and present an unacceptable level of risk of failure and outage to ratepayers and the Company.

   By contrast, while the St. Laurent pipeline(s) system is largely located in a heavily urban area including: wall-to-wall concrete, densely congested right of way (beneath or adjacent to arterial roads), exposure to road salt, and frequent damage from third-party contractors (often unreported), the London Lines pipeline system was largely

installed along rural county roads or within easements along empty fields which did not expose the pipelines to comparable environmental stresses. The consequence of the St. Laurent pipeline(s)' urban location combined with its age/vintage have ultimately exposed the pipeline(s) to greater damages to the pipeline coating and accelerated corrosion leading to a shorter useful life compared to other pipelines located in rural settings, such as the London Lines pipeline system.

b) As described in the EGD 2018-2027 Asset Management Plan ("AMP")[1], the steel pipeline system (over 12,000 km in total) accounts for approximately 35% of all mains within the gas distribution system. The "vintage steel mains" (installed in 1970 and prior), across the entire EGD Rate Zone, account for over 50% (more than 7,000 km) of the total steel mains population. As such, it would be an exhaustive exercise to produce a list of all vintage steel mains. Please see the responses at Exhibit I.ED 10, and at Exhibit I.FRPO.15 for references to the various AMPs where EGD's steel mains, including the vintage steel mains (and those that are the subject of the current Updated Application) are described.

In an attempt to be as responsive as reasonably possible, in Table 1 Enbridge Gas has narrowed the list of vintage steel mains down to the 3 pipelines currently identified within the AMP that Enbridge Gas as requiring replacement due to the operational risks associated with their condition.

Table 1

Pipeline Name	Year Pipeline Installed
NPS 20 KOL Pipeline	1954
NPS 12 Martin Grove KOL Pipeline	1958
NPS 12 St Laurent Pipeline	1958

[1] The 2018-2027 EGD AMP was the first iteration of the Company's 10-year AMP. It was filed in EB-2017-0306/EB-2017-0307, at Exhibit C.STAFF.54, Attachment 1.