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**BY E-MAIL**

February 8, 2022

Nancy Marconi  
Acting Registrar  
Ontario Energy Board  
2300 Yonge Street, 27<sup>th</sup> Floor  
Toronto, ON M4P 1E4

Dear Ms. Marconi:

**Re: Enbridge Gas Inc. (Enbridge Gas)**  
**Application for St. Laurent Ottawa North Replacement Project Approval**  
**OEB File Number: EB-2020-0293**

In accordance with Procedural Order No. 5, please find attached OEB staff interrogatories on the Sponsors Evidence filed the above proceeding. The attached document has been forwarded to the Sponsors and to all other registered parties to this proceeding.

Yours truly,

*Original Signed By*

Zora Crnojacki  
Senior Advisor  
Natural Gas Applications

Encl.



# **OEB Staff Interrogatories on Sponsors Evidence**

**Application for St. Laurent Ottawa North Replacement Project  
Approval**

**EB-2020-0293**

**February 8, 2022**

## **2.1-Staff-1**

Topic: City of Ottawa corporate and community greenhouse gas inventories

Ref: Direct Evidence of Michael Fletcher and Daniel Dicaire pages 4-5, Climate Change Master Plan – Report to Standing Committee on Environmental Protection, Water and Waste Management pages 32-35

Preamble:

The City of Ottawa staff report shows that corporate greenhouse gas emissions have decreased by 43% between 2012 and 2020, while community greenhouse gas emissions have decreased by 15%, based on annual corporate and community greenhouse gas emissions inventories.

Questions:

- a) Based on the data used to develop these greenhouse gas inventories, please provide annual corporate natural gas use for each of the years from 2012 to 2020.
- b) Based on the data used to develop these greenhouse gas inventories, please provide annual community natural gas use for each of the years 2012 to 2020.

## **2.1-Staff-2**

Topic: City of Ottawa plans to reduce corporate natural gas use

Ref: Direct Evidence of Michael Fletcher and Daniel Dicaire pages 4, 7, Climate Change Master Plan – Report to Standing Committee on Environmental Protection, Water and Waste Management pages 64-65, Compiled List of City of Ottawa Facilities in St. Laurent Area and Natural Gas Usage, page 183

Preamble:

Mr. Fletcher indicates that the City's Energy Evolution program aims to reduce corporate City of Ottawa emissions to zero by 2040, and notes actions taken under the City Buildings

Renewal and Deep Retrofit program to reduce emissions in City owned buildings, including replacing gas heating systems with heat pumps,

Questions:

- a) Has the City of Ottawa developed a plan or forecast for how natural gas use in corporate City of Ottawa buildings is expected to decline over time in order to achieve the target of zero corporate City of Ottawa emissions by 2040? If so, please provide.
- b) Does the corporate City of Ottawa expect that it will no longer require natural gas distribution service from Enbridge Gas, in the area of the city currently served by the St. Laurent pipeline, at some time in the future? If so, by what date is this projected to occur?
- c) "The City Buildings Renewal and Deep Retrofit program calls for renewals and deep retrofits of city buildings, which will reduce thermal energy demand by 60 to 70% and replace most existing gas heating systems with heat pumps. Participating facilities of this program in the St. Laurent area will potentially result in 4,161,477 m<sup>3</sup> annual natural gas reduction. Included at page 183 of the attached materials is a list of buildings subject to this program and relevant to the St. Laurent area, as well as their annual total potential reduction in natural gas use." (p. 7 of evidence)

Please confirm that the data presented on page 183 is actually the 2019 natural gas use of the listed buildings. In other words, would achieving the stated potential 4,161,477 m<sup>3</sup> annual natural gas reduction require the complete elimination of natural gas use in these buildings?

- d) Please provide the City's perspective on the technical and economic feasibility of achieving 60-70% reduction in thermal energy demand through deep retrofits, including learnings from any deep retrofits undertaken in corporate City of Ottawa buildings through the Municipal Buildings Renewal and Retrofit Program.
- e) Please provide the City's perspective on the technical and economic feasibility of eliminating natural gas use entirely in corporate City of Ottawa buildings, including learnings from the completed projects that replaced fossil-fuel based heating systems with heat pumps.

- f) In the City's completed and planned replacements of gas heating systems with heat pumps in corporate City of Ottawa buildings, are these buildings still requiring natural gas service from Enbridge as backup or supplementary energy sources, and if so, with the same level of firm service capacity?
  
- g) Has the City of Ottawa assessed the risks to corporate City of Ottawa buildings if Enbridge's St Laurent pipeline is not replaced, and a leak causes it to be temporarily taken out of service? Please discuss.

## 2.1-Staff -3

Topic: City of Ottawa plans to reduce community natural gas use

Ref: Direct Evidence of Michael Fletcher and Daniel Dicaire pages 4-5, Climate Change Master Plan – Report to Standing Committee on Environmental Protection, Water and Waste Management page 33, 58-63, Energy Evolution – Ottawa's Community Energy Transition Strategy 116,127.

Preamble:

Mr. Fletcher notes the intent of the City's Energy Evolution program to reduce community emissions to zero by 2050, and discusses specific programs targeted at the buildings sector, including targets for these programs. The City staff report provides additional details on program achievements and milestones, while the Energy Evolution report provides additional data on the planned reduction in emissions from natural gas use through 2050.

The City staff report (p. 33 of evidence) notes that "Energy Evolution was only approved one year ago and that many of these policies, programs, and plans are still in development, it will take time for these initiatives to have an effect. Staff do not expect to see a significant reduction in the next two to three GHG inventories, particularly on the community side. This is due to the number, scale and complexity of the projects required to achieve Council's targets, as well as factors outside the City's control, including policy decisions by senior levels of government and the availability of funding and market solutions."

Questions:

- a) Figure 10 of Energy Evolution (p. 116 of evidence) provides projected emissions by fuel source (including natural gas) through 2050. If possible, please convert the data in this figure to a table showing projected natural gas use by year through 2050.
- b) Figure 10 shows a small, but non-zero, role for natural gas from fossil fuels beyond 2040. What is the anticipated end use for this natural gas, and would this natural gas be delivered to end users by Enbridge Gas?
- c) Please comment as to whether the planned reductions in greenhouse gas emissions from natural gas use shown in Figure 10, and the reductions in the building sector in the first five years through 2025 shown in Table 15 (p. 127 of evidence), are a reasonable estimate of reductions that will likely be achieved, based on the City's experience to date in implementing the community-based emissions reductions initiatives in the Energy Evolution plan, including the Residential Building Retrofit Accelerator Program and the Commercial Building Retrofit Accelerator Program.
- d) Has the City of Ottawa assessed the risks to the community if Enbridge's St Laurent pipeline is not replaced, and a leak causes it to be temporarily taken out of service? Please discuss.

**2.1-Staff-4**

Topic: Ottawa Renewable Natural Gas Strategy

Ref: Direct Evidence of Michael Fletcher and Daniel Dicaire page 5, Climate Change Master Plan – Report to Standing Committee on Environmental Protection, Water and Waste Management pages 71-72

Preamble:

Mr. Fletcher indicates that based on the City of Ottawa's Energy Evolution program, by 2050, "renewable natural gas is expected to provide approximately 12% of the city's energy requirements, versus the 50% which is provided by fossil derived natural gas currently." The City staff report provides an update on the City's plans to develop and implement a Renewable Natural Gas strategy.

Questions:

- a) Based on the work done on the Renewable Natural Gas strategy to date, is it expected that Enbridge Gas's natural distribution infrastructure would be used to distribute some or all of the planned renewable natural gas production to consumers?
- b) Would this natural gas distribution require the use of the current St Laurent pipe (or any replacement natural gas distribution infrastructure for this pipe that Enbridge might build)? Please discuss.

**2.1-Staff-5**

Topic: Reduction in natural gas use in the federal district heating system

Ref: Direct Evidence of Michael Fletcher and Daniel Dicaire, page 4, Public Services and Procurement Canada Presentation 2019, pages 184-210

Preamble:

Mr. Fletcher notes that "the modernization of the downtown Federal district heating system will eliminate the vast majority of natural gas use on this system" and that conversion of the heating systems from steam to hot water at the Cliff Street heating and cooling plant in the St. Laurent pipeline area is projected to reduce GHG emissions for that plant by 87% by 2025, with almost all of this reduction coming from reductions in natural gas use. The presentation "Connecting to Ottawa's Emerging Downtown Districts" provides additional detail on efforts to reduce the greenhouse gas emissions from the federal district heating system.

Questions:

- a) To the City of Ottawa's knowledge, has the federal government developed a plan or forecast for how natural gas use (annual or peak) by the federal district energy system is expected to decline over time under the Energy Services Acquisition Program, in order to achieve the federal government's stated GHG emissions targets for its district energy system (35% of baseline by 2025 and less than 10% of baseline by 2030)? If so, please provide.

- b) Please provide a source for the claimed 87% reduction in greenhouse gas emissions from the Cliff Street plant by 2025. To the City of Ottawa's knowledge, has the federal government developed a plan or forecast for how natural gas use (annual or peak) at the Cliff Street plant is expected to decline over time in order to meet this target? If so, please provide.

## 2.1-Staff - 6

Topic: Reduction in natural gas use by Ottawa Community Housing

Ref: Direct Evidence of Michael Fletcher and Daniel Dicaire, page 8, ProEng Consulting Inc Calculations Review Letter, pages 274-275

Preamble:

Mr. Dicaire notes that Ottawa Community Housing expects to reduce natural gas use to zero by 2040 through implementation of its current plan, including deep retrofits and phase-out of natural gas equipment, and that programs responsible for 25% of greenhouse gas reduction targets have already been funded. Calculations from ProEng support the conclusion that Ottawa Community Housing's planned projects will lead to a 25% reduction in energy use and greenhouse gas emissions on a portfolio basis.

Questions:

- a) Please confirm that the projects shown on pages .274-275 of the evidence are the source of the statement that "programs responsible for 25% of greenhouse gas reduction targets have already been funded", and that all of the listed projects are fully funded.
- b) By what year is this set of projects expected to completed?
- c) Has Ottawa Community Housing completed any projects to date that include deep retrofits and/or fuel switching to heat pumps, similar to the planned projects shown on page 275? If so, please provide the OCH's perspective on the technical and economic feasibility of such projects, based on learnings from the completed projects.