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Our File No. 225289

**VIA EMAIL AND E-FILE**

Ontario Energy Board  
2300 Yonge Street  
27th floor, P.O. Box 2319  
Toronto, ON M4P 1E4

Attention: Nancy Marconi, Registrar

Dear Ms. Marconi:

**Re: EB-2022-0200: Enbridge Gas Inc., 2024 Rebasing**

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Attached, please find the final argument of BOMA, prepared by Enerlife.

Yours truly,

**FOGLER, RUBINOFF LLP**

A handwritten signature in black ink, appearing to be "A. Engel", written over a horizontal line.

Albert M. Engel

AME/dd

Encl.

cc: All Parties (*via email*)

**ONTARIO ENERGY BOARD**

**IN THE MATTER OF** the Ontario Energy Board Act,  
1998, S.O. 1998, c.15 (Schedule. B);

**AND IN THE MATTER OF** an Application by  
Enbridge Gas Inc, pursuant to section 36(1) of the  
Ontario Energy Board Act, 1998, for an order or  
orders approving or fixing just and reasonable rates  
and other charges for the sale, distribution,  
transmission and storage of gas as of January 1,  
2024.

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**EB-2022-0200 ENBRIDGE GAS REBASING**  
**BOMA'S FINAL ARGUMENT WITH RESPECT TO PHASE 1**

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September 19<sup>th</sup>, 2023

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## Introduction

1. This is the Final Argument (Argument) of BOMA, the Building Owners and Managers Association, related to the application by Enbridge Gas to approve rates for the sale, distribution, transmission, and storage of gas commencing January 1, 2024. Enbridge Gas has also applied for approval of an incentive rate-making mechanism (IRM) for the years from 2025 to 2028.
2. BOMA represents owners and managers of commercial, multi-residential and light industrial buildings. BOMA has also provided evidence in this proceeding, prepared by Enerlife Consulting Inc (Enerlife), related to institutional buildings (hospitals, schools, municipalities and post-secondary education).
3. This Argument relates to this broader commercial sector, which comprises **all** buildings, both privately and publicly owned, **except for** single-family residential and large (contract) industrial. We refer to this broader commercial sector throughout as Commercial Sector and Commercial Buildings.
4. While this Commercial Sector is not readily segregated from Enbridge Gas' General Service and Contract customer categories, from the evidence provided by Enbridge Gas, Enerlife estimates that this Commercial Sector accounts for approximately:
  - a. 30% of Enbridge Gas' total 2024 gas demand.
  - b. 300,000 of 3.8 million General Service customers.
  - c. 220 of 1,000 contract customers.
5. This Commercial Sector is very different from single-family residential in terms of scale (much larger buildings), ownership, use and occupancy and energy using building systems. These differences present opportunities for broader commercial owners to make important contributions to the Energy Transition which are not well represented in Enbridge Gas' Application and Evidence for this proceeding.
6. Within this Commercial Sector, big differences also exist between building types. Hospitals, office buildings, municipal community centres, university campuses and schools have very different governance, energy use profiles and needs with respect to DSM and energy planning. However, as described in Enerlife's evidence, two important factors with respect to the Energy Transition which Commercial Sector building types have in common are:
  - a. Large ventilation systems with outside air makeup volumes which cause a disproportionate share of annual and peak (design) day gas demand and savings potential.

- b. Substantial internal heat gains from electrical equipment and occupants which are predominantly rejected from buildings today through cooling towers, air cooled condensers and exhaust air fans and can be recycled to heat the buildings.
7. As described in Enerlife's evidence, peak as well as annual gas demand will be substantially reduced through installation of high efficiency equipment for recovery of heat and humidity from exhaust air to pre-condition incoming outside air, and for recycling of internally generated heat (for example from IT equipment, grocery store refrigeration units and arena ice plants) using heat recovery chillers. As a result of corporate climate commitments, these projects are now beginning to happen at scale across Ontario and the impact will be seen through this rebasing period and beyond.
8. These major Energy Transition opportunities are not reflected in the strategies or included in the forecasts provided in Enbridge Gas' Application and Evidence.

### **Issues 3, 6 and 8 Annual Demand Forecast**

9. Enbridge Gas' forecast growth in gas demand over the rebasing period and beyond fails to recognize the scale of DSM potential in the broader commercial sector which is presented in Enerlife's evidence. Enbridge Gas' DSM forecast for commercial buildings in 2024 and 2025 amounts to less than one tenth of the 2019 Achievable Potential Study (APS). Enerlife's data presented in evidence for 2028 shows achievable potential 3 times greater than the 2019 APS for the same year (Enbridge Gas' forecast only goes to 2025).
10. Enerlife's empirical data provide substance to the body of opinion expressed throughout this proceeding that gas demand reductions over the course of the rebasing period and beyond will be far greater than is considered in Enbridge Gas' Application and Evidence, with implications for gas prices and capital planning.
11. All parties agree that maximizing energy efficiency is the first and most important "safe bet." In the Commercial Sector, accomplishing as much as possible through operational improvements and retrofits which pay for themselves within a few years makes the overall Energy Transition easier and reduces all parties' costs.
12. In cross examination of Panel 4 (BOMA evidence) Mr. Stevens posited "So fair to say it (Enerlife's demand reduction forecast) is really more aspirational than anything else? It is possible, but there is no evidence to say it is going to happen? Further "that the 20 percent reduction in commercial building throughput or demand by 2028 can't fairly be said to be a forecast, can it? It is somewhere you would hope to be somewhere, and that we might get to, but it is not a forecast." Mr. Jarvis' (Enerlife) response was "I am not sure, given the current situation we are in with climate change, whether "aspirational" is an appropriate word anymore." Further "if I could reframe, the numbers we placed in there become a forecast as and when we are able to align all of these areas (DSM frameworks, scorecards

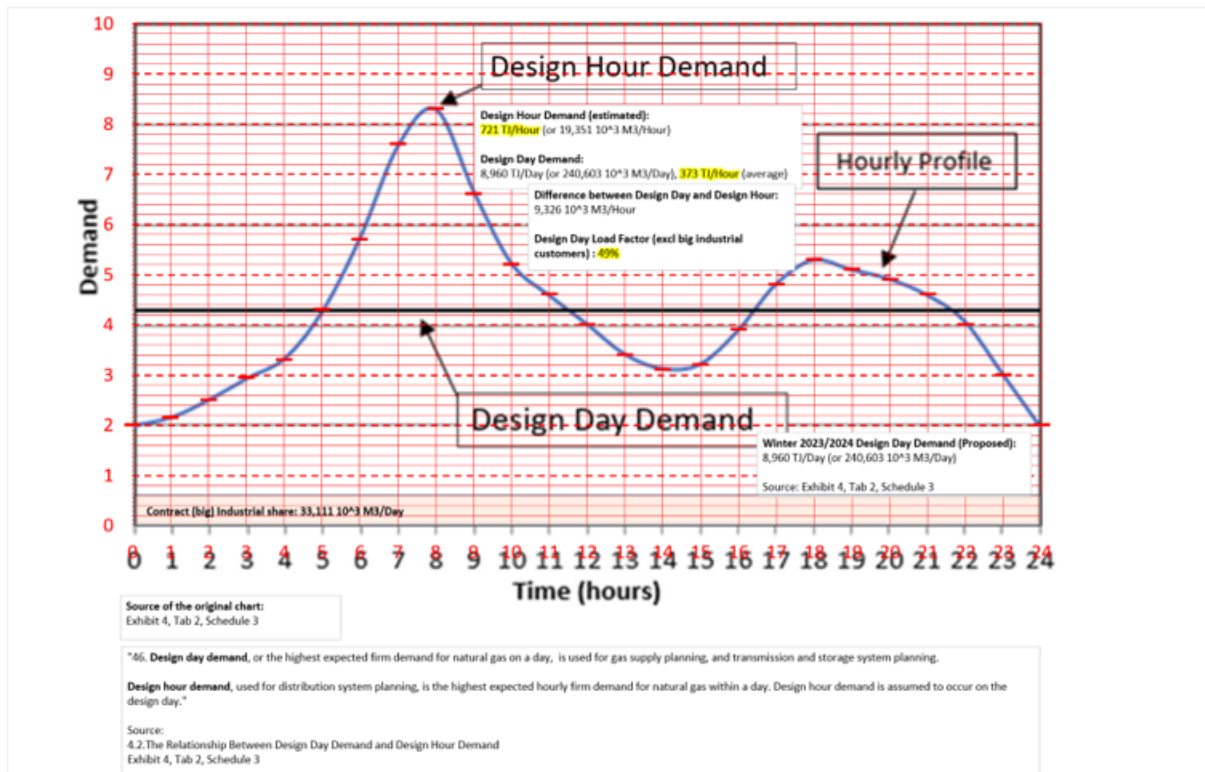
and program design) to achieve what, unless somebody has some interesting insight which hasn't emerged in the last decade, is an achievable savings potential.”

13. No party has presented evidence or argument to refute the Enerlife expert witness report that, after adjusting for building area, weather and other material variables, all commercial buildings should be able to meet a top quartile energy intensity standard which, by definition, 25% of comparable buildings of the same types have already achieved. Indeed, as more and more buildings are meeting and going beyond this standard, this is the least we should be aiming for.
14. In BOMA's opinion, all parties simply must respect what the publicly available Ministry of Energy BPS and EWRB data are telling us and raise their ambition and expectations regarding the scale of the DSM gas reduction potential. This applies directly to this Enbridge Gas rebasing and equally to the next Achievable Potential Study and upcoming DSM and CDM proceedings.
15. **REQUESTS OF THE OEB:** BOMA requests that the Board consider the likelihood of the reduced gas demand presented in evidence in all appropriate aspects of this proceeding.

### Issue 3 Peak Demand Forecast

16. Enbridge Gas' forecast growth in design day and design hour demand also fails to account for the large reductions which will take place. Commercial Buildings' DSM and Decarbonization actions are substantially reducing peak demand as well as annual consumption of natural gas.
17. Page 9 of BOMA's Compendium Exhibit K14.1 provided Enerlife's representation of the design day profile originally included in the Enbridge Gas Evidence (Exhibit 4 – tab 2, schedule 3, page 21 Figure 1). This is replicated below, with the estimated share of demand due to large industrial customers added for reference.

Figure 1 Relationship between design day and design hour demand



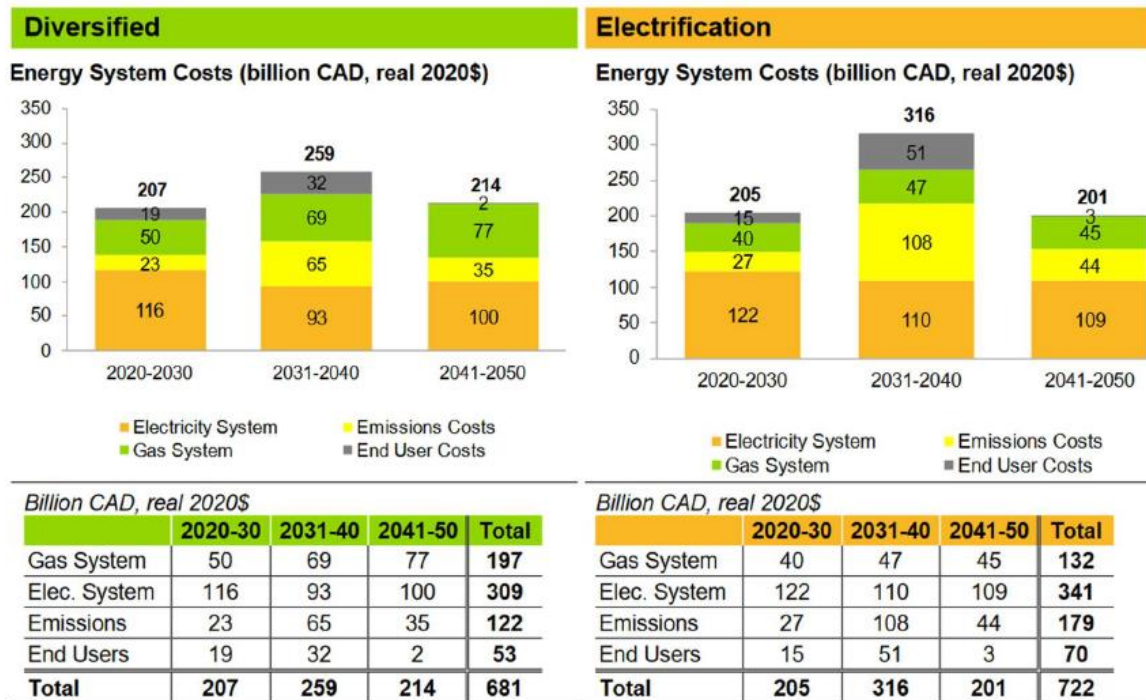
18. This profile illustrates the spike in design hour demand around 8am. A substantial part of this spike is attributed to residential customers switching from overnight setback to daytime temperatures and using domestic hot water and gas appliances. With appropriate information and incentives, Commercial Buildings can offset this peak through adaptive controls.
19. OEB Staff in IRR N. M3. Staff-2 asked "what level of reduction in design day or design hour demand would Enerlife recommend Enbridge Gas use for the commercial sector? Would this be less than, equal to, or greater than the proposed 30% reduction in overall gas use?" In response Enerlife presented results of modeling showing peak demand reductions due to ventilation heat recovery and heat pump applications between 50% and 80%. "While every building is different, we anticipate these kinds of peak demand reductions in most buildings as net zero planning turns to implementation."
20. **REQUESTS OF THE OEB:** BOMA requests that the Board consider the likelihood of the reduced gas demand presented in evidence in all appropriate aspects of this proceeding.

## Energy Transition

21. Broader commercial sector building owners face the same dilemma as Enbridge Gas and other organizations related to the Energy Transition. There is broad acceptance that the low carbon future is coming over the next 2-3 decades, involving major changes which will impact asset values, investment decisions and business operations. At the same time there is great uncertainty surrounding policy, behavioural, economic, technological and other interrelated factors which will play out over this period of time.
22. Building owners generally respond to the Energy Transition dilemma with immediate "safe bet" actions which make sense under any conceivable future scenario. These actions begin with focus on improved energy efficiency, which reduces utility costs and better positions their properties for decarbonization. The strategy aligns well BOMA's recommendation for substantially raising Enbridge Gas' DSM targets.
23. Building owners are also modifying their capital planning to consider low carbon alternatives to like-for-like replacement of plant and equipment when it reaches end of useful life. This common-sense good business practice reduces the risk of higher costs and stranded assets in future as conditions change due to the Energy Transition. BOMA will support Enbridge Gas in identifying and adopting every opportunity to avoid, reduce and defer gas system capital expenditures through targeted demand reductions in commercial buildings.
24. There has been considerable discussion throughout this proceeding regarding the Guidehouse Pathways to Net Zero (P2NZ) study and Posterity's Energy Transition Scenario Analyses (ETSA). BOMA's view is that these studies fail to incorporate the particular conditions and opportunities of the Commercial Sector related to the Energy Transition and are therefore unhelpful for charting the optimal direction and determining the best strategies for avoiding unnecessary risk and transition costs.



Figure 2 Energy System Costs for Diversified and Electrification Scenarios



25. The Guidehouse estimate of comparative costs of the two alternative Energy Transition scenarios which they considered was modified over the course of the Oral Hearing and ultimately proved inconclusive in choosing the “best” pathway forward. BOMA believes that omission of electrical distribution reinforcement costs renders the largest single part of that cost estimate (electrical infrastructure) largely meaningless.
26. **REQUESTS OF THE OEB:** BOMA requests that the Board recognize the inadequacies of the scenarios presented in Enbridge Gas’ Evidence, in particular the failure to incorporate the circumstances and opportunities of the Commercial Sector and take a rigorous approach to avoiding capital expenditures which are likely to become stranded assets.

### Reliable Gas Use Data – MRPM and Advanced Metering Infrastructure (AMI)

27. Enbridge Gas provides contract customers with interval (advanced) gas metering which provides the owner with accurate monthly consumption data. Interval metering also provides hourly usage profiles to enable analysis of peak demand, how consumption varies with occupancy and weather and other information which helps identify inefficiencies and opportunities to implement and verify savings.

28. Contract customers make up less than 0.1% of Commercial Buildings. The rest are General Service customers relying on intermittent manual meter readings by door to door meter readers. In theory meters are read every second month, with estimated billing in between. In practice, estimated billings are often found to extend for many months in a row. This lack of complete and accurate data confounds utility budgeting and tracking and presents a major barrier to owners' DSM activities and Energy Transition planning.
29. For these reasons, a few Commercial Building owners have invested in their own metering systems, which is a costly and inefficient approach to mitigating a fundamentally archaic metering system.
30. Like customers, Enbridge Gas also has little or no visibility into gas demand by Commercial Buildings. As discussed under IRP below, lack of advanced metering data prevents Enbridge Gas and Commercial Building owners from identifying opportunities to lower design day and design hour gas demand in Commercial Buildings which could reduce or avoid gas distribution and upstream capital costs.
31. BOMA opposes Enbridge Gas' request for a partial exemption from the SQR requirements of the Gas Distribution Access Rule (Issue 40) in respect of Meter Reading Performance Measurement metrics for 2023 and 2024 with respect to Commercial Buildings. The level of service allowed already falls far short of what owners need to effectively manage their gas consumption. The additional operating cost of regular, reliable meter reading should be factored into the business case for investment in AMI.
32. BOMA notes that the British Columbia Utilities Commission (BCUC) has approved implementation of a province-wide AMI for residential, commercial and industrial customers [https://www.fortisbc.com/news-events/media-centre-details/2023/05/17/fortisbc-receives-approval-from-the-bcuc-for-advanced-gas-meters#:~:text=\(FortisBC\)%20received%20approval%20from%20the,million%20gas%20meters%20across%20B.C](https://www.fortisbc.com/news-events/media-centre-details/2023/05/17/fortisbc-receives-approval-from-the-bcuc-for-advanced-gas-meters#:~:text=(FortisBC)%20received%20approval%20from%20the,million%20gas%20meters%20across%20B.C)
33. BCUC's rationale and stated benefits have direct relevance to this proceeding and include:
- The purpose is to enhance its customers' experience by upgrading more than one million gas meters across BC.
  - Gas customers will receive the ability to access daily data of their gas usage which will help create cost effective energy choices.
  - Gas customers will also receive notifications of gas leaks or unusual flows (faulty appliances).
  - The purpose is to also reduce the inconvenience to customers by no longer needing to shut-off gas service during meter exchanges and will no longer need to enter customer homes.
  - As well the changes will allow FortisBC to better monitor and manage its system and offer additional safety features (detecting and fixing gas leaks).
  - Will enable more accurate and convenient billing processes, reduce meter reading costs and service risks, help customers access their energy consumption and conserve energy.

34. BOMA takes no position with respect to AMI or MPMR for residential customers where the number of customers is far greater, the sector is more homogeneous and the related opportunities for enabling enhanced DSM and supporting the Energy Transition may be less.
35. **REQUESTS OF THE OEB:** BOMA requests that the Board:
- require Enbridge Gas to conclude its AMI pilots and develop its strategy, budget and implementation plan for Commercial Buildings for Board approval by March 31<sup>st</sup> 2024.
  - complete installation of the reporting infrastructure and metering for 20% of Commercial Buildings by the end of 2025, and for all Commercial Buildings by the end of 2026.
  - disallow Enbridge Gas' request for partial exemption from SQR requirements with respect to MRPM metrics.
  - consider beefing up those SQR requirements for MRPM for Commercial Buildings until the AMI installation is complete.

### Integrated Resource Planning

36. BOMA's cross-examination of EGI Panel 11 discussed the share of design hour and design day demand attributable to Commercial Buildings (see Figure 1 in paragraph 16 above), and the potential to avoid or reduce planned distribution system and upstream capital expenditures through demand reductions.
37. There was agreement that design hour demand in different parts of the gas system drives capital expenditures on distribution system reinforcement and that demand reductions could reduce planned capital costs.
- MR. WELLINGTON: I fully agree that there may be an impact there. For the remaining line items pertaining to our distribution assets, in particular, pipe and stations, we -- there is a potential, I would say, but we would have to look at it through a similar lens as we would through an IRP technical evaluation to understand, you know, what we could achieve in the way of potentially, you know, a diameter reduction in a pipe replacement project.*
38. The discussion made clear that gas demand profiles from Enbridge Gas' telemetry stations or from individual buildings affected by a proposed distribution reinforcement project are not considered in current IRP and LTC processes:
- MR. JARVIS: I think that more than answers the question. That's great. Would it be normal for an IRP application or a leave to construct application for a piece of the system that Enbridge would provide that profile, that information from the nearest telemetry as part of that application? Would that be a normal thing that intervenors could review?*
- MR. CLARK: Brad Clark. I'd say that that's not normal, hasn't been traditionally supplied.*

*MR. JARVIS: Okay. That's helpful. Thank you. If I understand correctly, when you want to figure out where the gas goes, when you are looking at a particular flow, you've got the contract customers connected to that piece of the system, and you would take the total flow and subtract the contract customers, and so you've got the shape there, you've got the peaks and everything else, and the rest would be residential and commercial general service. Is that about right? Is that how you kind of figure out what's going where?*

*MR. DILLON: Yes, Gord Dillon, that's correct.*

*MR. JARVIS: Okay, so, in the event that we were fortunate enough to have individual metering on commercial buildings, then that would give you further discrimination that now we've got the total flow from your stations, and we can take all of those commercial customers away and the rest is the fairly homogenous residential sector. So it would give us better visibility on how gas is being used in that section of the system; is that fair?*

*MR. DILLON: That's a fair, that's a fair statement, yes.*

39. BOMA welcomes the two pilot IRP projects under development for Parry Sound and southern Lake Huron which include metering Commercial Buildings.

*MS. WADE: That's correct. So, within our Parry Sound and southern Lake Huron pilots, within the application, we have applied for -- or we've included in our proposal putting meters on commercial buildings.*

40. **REQUESTS OF THE OEB:** BOMA requests that the Board direct Enbridge Gas to accelerate and modify their IRP pilot projects, and their current and future IRP and LTC applications, to:

- a. incorporate analysis of gas demand profiles from related telemetry stations.
- b. install interval meters on related Commercial Buildings to identify their share of design hour demand.
- c. engage these Commercial Building customers in an assessment of opportunities to reduce peak demand.
- d. modify their analysis and applications accordingly.