500 Consumers Road
North York, Ontario
M2J 1P8
PO Box 650
Scarborough ON M1K 5E3

Shari Lynn Spratt
Supervisor Regulatory Proceedings
Telephone: (416) 495-5499
Fax: (416) 495-6072
Email: EGDRegulatoryProceedings@enbridge.com

October 21, 2013

VIA COURIER, EMAIL and RESS

Ms. Kirsten Walli
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4

Re: Enbridge Gas Distribution Inc. ("Enbridge")
EB-2012-0451 - Greater Toronto Area ("GTA") LTC Project
Argument-In-Chief

In accordance with the Ontario Energy Board's Procedural Order No. 12, enclosed please find Enbridge's Argument-In-Chief for the above noted proceeding.

The submission is being filed through the Ontario Energy Board's Regulatory Electronic Submission System and all of the GTA evidence can be found on Enbridge's website at www.enbridgegas.com/gtaproject.

Please contact me if you have any questions.

Yours truly,

[original signed]

Shari Lynn Spratt
Supervisor Regulatory Proceedings

Encl.

cc: EB-2012-0451, EB-2012-0433, and EB-2013-0074 Interested Parties

IN THE MATTER OF an application by Enbridge Gas Distribution Inc. for an order or orders granting leave to construct a natural gas pipeline and ancillary facilities, in the Town of Milton, the City of Markham, Town of Richmond Hill, City of Brampton, City of Toronto, City of Vaughan and the Region of Halton, Region of Peel and Region of York; and an order or orders approving the methodology to establish a rate for transportation services for TransCanada Pipelines Limited;

AND IN THE MATTER OF an application by Union Gas Limited for: an Order or Orders for pre-approval of recovery of the cost consequences of all facilities associated with the development of the proposed Parkway West site; an Order or Orders granting leave to construct natural gas pipelines and facilities in the Town of Milton; an Order or Orders for pre-approval of recovery of the cost consequences of all facilities associated with the development of the proposed Brantford-Kirkwall/Parkway D Compressor Station Project; an Order or Orders for pre-approval of the cost consequences of tow long term short haul transportation contracts; and an Order or Orders granting leave to construct natural gas pipelines and ancillary facilities in the City of Cambridge and City of Hamilton.

ARGUMENT IN CHIEF OF ENBRIDGE GAS DISTRIBUTION INC.

1. Introduction

Enbridge Gas Distribution Inc. ("**Enbridge**" or the "**Applicant**") has applied for leave to construct the GTA Project which, as described below, is comprised of two segments - referred to as Segments A and B - and the Parkway West facilities. Enbridge has also applied for approval of the rate methodology for transmission services along Segment A of the proposed GTA Project[1].

[1] Enbridge has proposed a new rate, Rate 332, for transmission services on Segment A of the GTA Project. Enbridge has not applied for approval of Rate 332 in this proceeding, but seeks approval of the rate methodology. Approval of Rate 332 has been requested in Enbridge's pending rates case, EB-2012-0459.

The primary purpose of the GTA Project is to address Enbridge's immediate and future distribution system needs for the almost 1,000,000 customers[2] in the GTA Project Influence Area.

The GTA Project has also been optimized to provide transmission capacity that is capable of addressing short haul market access requirements for the transportation of natural gas to Eastern Markets, and will, if approved, provide associated benefits.

The GTA Project is first and foremost a distribution project that has been designed to fulfill multiple distribution purposes and to address multiple needs of the distribution system.[3] At the highest level, the purpose of the GTA Project is to reinforce Enbridge's Extra High Pressure (XHP) pipeline system to manage operational risks and meet growth needs in a prudent manner.[4] As stated by Ms Giridhar during her testimony on the joint panel that gave evidence in these proceedings on October 9 and 10, 2013,

> … you've heard a very compelling account from my co-panellists about the importance of market access … but I would just like to make a couple of comments as they related to Enbridge's applied-for facilities.
>
> First of all, Enbridge applied for a distribution-only pipeline in December of 2012. It was scoped as an NPS-36 at the time. We must remember that, even with the current scope, over 90 percent of projected project spend is associated with the distribution need.
>
> We have very compelling economics that allow a 10 percent or less project spend that will allow market access for Ontario and Quebec.
>
> Secondly, we must remember that Enbridge needs these facilities to be in place for November of 2015 to meet the distribution needs in the GTA for the 2015-2016 winter.[5]

In short, Enbridge proposes construction of the facilities comprising the GTA Project, with an in-service date of November 2015, in order to meet growth in the GTA and to ensure safe and reliable service to its customers. The proposed facilities will fulfill multiple distribution purposes and address multiple distribution needs, while at the same time enabling market access to short haul gas transportation services.

---

[2] Exhibit A, Tab 3, Schedule 2, page 8, para. 27.
[3] 4Tr.82-83.
[4] Exhibit A, Tab 3 Schedule 1, page 1, para. 3.
[5] 8Tr.55-56.

2. GTA Project Facilities

Segment A of the proposed GTA Project includes the installation of approximately 27 kilometres of NPS 42 XHP steel pipeline to be located between the proposed Parkway West Station and the expanded Albion Road Station. A detailed map of Segment A can be found at Appendix A to this argument.

Segment B of the proposed GTA Project includes the installation of approximately 23 kilometres of NPS 36 XHP steel pipeline that would commence at Enbridge's existing Keele/CNR Station and travel northeast for approximately 15.4 kilometres to the proposed Buttonville Station, located south of Highway 407 between Pharmacy Avenue and Warden Avenue. Segment B would continue south for the remaining 7.6 kilometres to just north of Sheppard Avenue, where it would tie into an existing NPS 36 pipeline. Segment B also includes an expansion of the existing Jonesville Station. A detailed map of Segment B can be found at Appendix B to this argument.

The proposed Parkway West facilities are comprised of (a) a new gate station; (b) approximately 315 metres of NPS 36 XHP steel pipeline to connect the Parkway West Station to the existing NPS 36 Parkway North Line; and (c) new regulation to tie the Parkway North Line to the Mississauga South Line. A detailed map of the Parkway West facilities can be found at Appendix C to this argument.

Although each of Segment A and Segment B would, on its own, provide significant benefits for Enbridge's gas distribution system, the full benefits to the distribution system of the GTA Project can only be realized with the entire project in place. Segment A and Segment B are not be directly connected, but the two segments will be operated in an integrated manner.

Parkway West Gate Station would be the source of gas for Segment A, but it also important to add backup to Parkway and to integrate the existing Parkway North and Mississauga South Lines. Segment A and Parkway West Gate Station would bring additional volumes into the XHP system and Segment B is required to transport those volumes to the eastern GTA and Station B. Conversely, Segment B requires the capacity of Segment A to provide the full operational flexibility, looping and reliability benefits to the eastern part of the GTA XHP pressure system.

The following table[6] illustrates how the elements of the Proposed GTA Project would work together to meet the needs of Enbridge's distribution system in the GTA:

[6] Exhibit A, Tab 3, Schedule 1, page 3. The table has been slightly modified: the reference to a "Bram West Interconnect" has been removed from the heading of one of the columns.

	Segment A Pipeline	Segment A Parkway West Gate Station	Segment B	GTA Project
Customer Growth	↑		↑	↑↑
Safety and Reliability of XHP System	↑	↑	↑	↑↑↑
Entry Point Diversity	↑	↑		↑↑
Upstream Benefits	↑		↑	↑↑

3. The Public Interest Test

Enbridge's application for leave to construct the GTA Project is made under sections 90 and 91 of the *Ontario Energy Board Act, 1998* (the OEB Act).[7] The test for an application under these provisions is set out explicitly in section 96 of the statute. Section 96 provides as follows:

> If, after considering an application under section 90 … the Board is of the opinion that the construction, expansion or reinforcement of the proposed work is in the public interest, it shall make an order granting leave to carry out the work.

Thus, the governing legislation establishes a "public interest" test for an application under section 90 and it makes clear that, when the public interest test is met, the Board is mandated to issue a leave to construct order.

The "public interest" is not defined in the OEB Act, but the Board's approach to the public interest in leave to construct applications generally has involved consideration of the following factors: (i) project need; (ii) the economic feasibility and other benefits of the project; (iii) project alternatives; (iv) landowner and environmental impacts; and (v) the current technical and safety requirements.

The factors to be considered in assessing the public interest are informed by the statutory objectives set out in section 2 of the OEB Act. Section 2, of course, states the objectives that are to guide the Board in carrying out its responsibilities under the OEB Act in relation to gas. The GTA Project as proposed by Enbridge gives effect to the following statutory objectives found in section 2:

[7] S.O. 1998, c. 15, Sch. B.

1. To facilitate competition in the sale of gas to users.

2. To protect the interests of consumers with respect to prices and the reliability and quality of gas service.

3. To facilitate rational expansion of transmission and distribution systems.

5.1 To facilitate the maintenance of a financially viable gas industry for the transmission, distribution and storage of gas.

4. Strong Case to Meet the Public Interest Test: Project Need and Benefits

The GTA Project is driven by important needs of Enbridge's distribution system and it provides a wide and multi-faceted range of benefits. This combination of meeting important needs of the distribution system, while delivering an extensive range of benefits, adds up to a very compelling case that the proposed GTA Project is in the public interest. While "need" and "benefits" might, in other circumstances, be separate subjects for a leave to construct application, in this case the full extent to which the proposed project advances the public interest can best be understood by an overall review of need and benefits.

The proposed GTA Project was specifically designed to address the following needs and purposes:

a) maintain the safety and reliability of Enbridge's distribution system in the GTA;

b) meet customer and load growth requirements until 2025;

c) improve entry point diversity by reducing reliance on the Parkway Gate Station;

d) improve upstream supply diversity;

e) improve operational flexibility of the distribution system;

f) reduce the pressure in the Don Valley line and the NPS 26 line;

g) allow upstream transportation contracts to better match needs of the distribution system, which is continuing to see peak demand growth; and

h) optimize transmission build-out with other utilities.

The following sections of argument explain in more detail the needs that drive Enbridge's proposal to construct the GTA Project and the benefits that would result from approval and construction of the proposed facilities.

(i) Distribution System Benefits

A. Customer & Peak Demand Growth

Enbridge's forecast is that the current infrastructure will be unable to supply the required volume of gas at the minimum required inlet pressure at Station B by the 2015/16 winter.[8] Station B is the most remote point on the XHP system from the entry point of gas to the Enbridge GTA franchise area. Enbridge first identified the inlet pressure of Station B as a concern in 2002 and has been actively monitoring the situation since that time.[9] The minimum inlet pressure of 225 psig at Station B is required to be able to provide gas to customers in the downtown core of Toronto and the Portlands Energy Centre, which is a critical source of electricity to the GTA. Absent the GTA Project, the inlet pressure at Station B is forecast to drop below the minimum system pressure; with the GTA Project, there will be 170 TJ/d of additional capacity to serve Station B.[10]

Enbridge uses a peak hour demand for facility design, as it must ensure continuous delivery of natural gas to its customers.[11] Enbridge's peak demand forecasting process incorporates existing customer growth forecasts, current customer consumption information and broader system trends.

Enbridge forecasts continued customer addition and peak demand growth for the GTA Project Influence Area, with the forecast addition of 161,423 customers through 2025.[12] The impact of the growth is experienced at Station B. Further, as most of the growth is residential, the associated load or demand is temperature sensitive. In other words, the distribution system continues to become "peakier".

It can be seen from the following table[13] that the customer growth experienced by Enbridge from 2004 to 2014 is expected to continue at a similar rate - with continued growth of temperature sensitive load - from 2015 to 2025:

[8] Exhibit A, Tab 3, Schedule 1, page 4, para. 7.
[9] Exhibit I.A1.EGD.GEC.29.
[10] Exhibit I.A1.EGD.BOMA.25(d).
[11] 5Tr. 15-17
[12] Exhibit A, Tab 3, Schedule 1, page 4, Table 2.
[13] Exhibit A, Tab 3, Schedule 1, page 4, Table 2.

Years	Residential	Commercial	Apartment	Industrial	Total
2004-2014	151,382	14,311	450	54	166,197
2015-2025	146,672	13,977	750	24	161,423

Enbridge's historic peak demand has been increasing in the Central Weather Zone at a rate of 1.2% since 1997 and within the GTA at a rate of 1.5% since 1999.[14] Peak demand growth is expected to continue to rise for the 10 year horizon with peak demand increasing from 3,093 to 3,333 10^3m^3/hour in 2025.[15]

Enbridge's existing XHP distribution system has not been expanded since 1992.[16] While it has been more cost effective to "buy" rather than "build" for the past several years that is no longer the situation – building capacity now is necessary. The absence of additional reinforcement would result in an inability to sustain customer growth beyond 2015.[17] The GTA Project provides the additional necessary capacity to maintain the minimum system design pressure to meet forecast customer and demand growth through 2025.

Thus, the GTA Project allows Enbridge to meet forecasted customer growth and peak growth needs and fulfill its obligation to serve.

B. Distribution Reliability and Safety

Reliable service requires a robust supply chain to provide necessary flexibility and diversity to manage operational risks effectively. In order to manage these risks in the GTA, Enbridge considered its downstream distribution system, entry point diversity and upstream supply. As described above, Enbridge's ability to manage these operational risks has become constrained because customer growth has consumed the available capacity in the XHP distribution system. The safe execution of maintenance, damage repair, inspection, and relocation activities often requires flow and/or pressure reductions. Finally, Enbridge must manage and mitigate the consequences of risks to its distribution system.

The following table[18] was included in Enbridge's evidence to summarize limitations in the supply chain and associated reliability consequences:

[14] Exhibit A, Tab 3, Schedule 5, page 7, para. 15.
[15] Exhibit A, Tab 3, Schedule 4, page 9, Table 3.
[16] Exhibit A, Tab 3, Schedule 1,page 3, para 6.
[17] Exhibit A, Tab 3, Schedule 1, page 4, para. 7.
[18] Exhibit A, Tab 3, Schedule 3, page 11, Table 1.

	Diversity Limitation	Flexibility Limitation	Operational Risk Limitation	Supply Consequence
Distribution	Single XHP line serving downtown core, Single XHP Link between western and eastern parts of the GTA Project Influence Area.	Inadequate ability to manage planned and unplanned maintenance and integrity work in higher demand periods.	Limited ability to reduce pressures in order to reduce risk and maintain supply during winter period.	Loss of minimum inlet pressure at Station B results in outage to firm customers at a 35DD
Entry Point	More than 50% of volumes from a single gate station.	Limited reserve capacity to compensate for reduced flows from a gate station.	Inability to maintain customers in the event of gate station failure in winter.	Loss of Parkway result in outage of approximately 270,000 residential customers plus PEC at a 35DD
Upstream Supply	Diversity opportunities are limited by upstream transport capacity	Limited ability to replace lost supply due to constraints in upstream transport capacity	Reliance on non-renewable long haul transport, and lack of Loss of Critical Unit ("LCU") protection for short haul transport creates portfolio risk in winter time	A 300 to 400TJ/d loss of supply results in an outage of approximately 150,000 to 225,000 customers at a 41DD

In 1990, Enbridge began construction of the Parkway Phase 2 pipeline, which is the NPS 36 pipeline running from Albion Road Station to the Keele/CNR Station located near Keele Street and Steeles Avenue West. By 1993, Enbridge had initiated planning for a Parkway Phase 3 pipeline that would run from the Keele/CNR Station to the NPS 30 Don Valley line. However, Enbridge was able to postpone construction of the Parkway Phase 3 pipeline when it procured additional Storage Transportation Service and then later, in 1995, introduced its first Demand Side Management (DSM) program.[19]

After the passage of a number of years, Enbridge again considered proceeding with the Parkway Phase 3 project – as referred to in Enbridge's evidence for its 2007 rate case – but the project

[19] Exhibit A, Tab 3, Schedule 2, pages 7-8.

was further postponed when Enbridge procured additional Firm Transportation capacity from Parkway to the Central Distribution Area from TransCanada PipeLines Limited (TransCanada).[20]

These decisions by Enbridge to defer construction of the pipeline between the Keele/CNR Station and the Don Valley line occurred because of Enbridge's efforts to execute rational expansion of its distribution system. However, as stated above, the "buy" rather than "build" option is a course of action that Enbridge can no longer continue. The NPS 26 line is the only XHP pipeline connecting the western and eastern parts of Enbridge's distribution system serving the GTA. The smaller NPS 26 connecting pipeline operates at 2586 kPa (375 psi), which is lower than either the NPS 36 Parkway North line or the NPS 36 Don Valley line. This situation results in a bottleneck between the western and eastern parts of the GTA.

Enbridge's gas control relies upon the NPS 26 line for managing demand and supply on the GTA system both operationally and for avoidance of financial penalties by ensuring gas supply imbalances are maintained within contractual limits.[21] Pressure reductions on the NPS 26 line would restrict Enbridge's ability to manage its gas supply and avoid penalties.

Segment B eliminates the east-west bottleneck on the XHP system; this allows gas to be available from more diverse supply points and it aids in daily load balancing required to meet upstream contractual obligations. Segment B also provides looping of part of the Don Valley line with the proposed new stations providing additional feeds into the XHP distribution system. The GTA Project allows for more operational flexibility during both planned activities, as well as unexpected upset conditions.

The Don Valley line provides the critical supply to Station B, the downtown core of Toronto and the Portlands Energy Centre. A required pressure restriction in this line, without the GTA Project, would result in the inability to serve firm customers in winter conditions. The potential of such an operational issue is evidenced by the two recent events in the summer of 2013 that necessitated a pressure restriction on the NPS 30 Don Valley pipeline.[22] If a similar event were to occur, without the GTA Project, in the late fall or winter months, timely remediation may not be possible and Enbridge would be forced to shed both interruptible and firm loads, including Portlands,[23] to maintain supply to as many customers as possible.

---

[20] Exhibit A, Tab 3, Schedule 2, pages 8.
[21] Exhibit A, Tab 3, Schedule 3, pages 13-14, para 24 and 25.
[22] 6Tr.90.
[23] 6Tr. 90. In this situation, service to Portlands Energy Centre could not be maintained. In Exhibit M.IESO.GEC.17 the IESO stated that "Union's Parkway West and Enbridge's GTA Expansion projects **enhance** the reliable supply of natural gas to various gas fired generators in Ontario. As gas-fired generation is essential to the reliable operation of the IESO-controlled grid, the IESO supports these projects." (Emphasis added.) In a letter dated June 28, 2013 the IESO stated that PEC "…has played a vital role to secure the supply to downtown Toronto. Based upon its location, it is not only needed to meet demand during peak demand days but also to allow maintenance outages of various local transmission elements to proceed."

In compliance with a recent code adoption document of the Technical Standards and Safety Authority, TSSA FS-196-12,[24] Enbridge is addressing the operating parameters of pipelines operating at greater than 30% of Specified Minimum Yield Strength ("**SMYS**") in densely populated or high consequence areas, in order to mitigate the risk of a catastrophic event. Ontario is by no means the only jurisdiction in which the risks of operating high stress pipelines in urban areas are under consideration. The Pipeline and Hazardous Materials Safety Administration in the United States (PHMSA)[25] is proposing new pressure restrictions such as 30% SMYS, 20% SMYS, and 10% SMYS for specific class locations. As stated by Mr. Thalassinos:

> Some people have heard about the incident [in San] Bruno about three years ago … of a line failing in an urban environment, causing a catastrophic event, a rupture.
>
> And largely as a result of that, what you've been hearing here is that our regulations are – one is our regulations are changing, both here and in the US, where they're putting additional requirements, additional risk mitigation-expectations on high-stress pipelines. In Ontario, for the TSSA, that is that focus on the 30 percent of SMYS.
>
> I'll even point to something as recently as just within the past few days, where PHMSA, which is the federal regulator in the US, is proposing new pressure restrictions for … class locations, above class 4 … that would be reducing those stresses in urban areas to sometimes 30, 20 and 10 percent of the SMYS.[26]

Both the Don Valley line and the NPS 26 line operate at greater than 30% SMYS and Enbridge has identified these XHP pipelines as high priority areas in its risk assessment process. Enbridge's need to manage risks associated with these two pipelines were highlighted in the following written evidence:

> The NPS 26 and NPS 30 Don Valley lines both operate above 30% SMYS, both have a wall thickness that is thinner than a pipeline that would be installed today, and both are critical to system operation given the supply consequences of an outage of these pipelines. … The Company's ability to provide reliable service is at risk given the lack of diversity of the supply path in these two lines, the limited flexibility of other pipelines to back-feed the

[24] Technical Standards and Safety Authority, *Oil and Gas Pipeline Systems Code Adoption Document*, FS-196-12.
[25] PHMSA is a U.S. Department of Transportation agency.
[26] 6Tr.153-154.

> same geographic areas, and the unavailable capacity to reduce these lines to below 30% SMYS on a temporary or operational basis to mitigate operational risk in normal operating conditions. The absence of diversity and flexibility in periods of higher demand increases the potential risk incurred by the Company as it may limit its ability to either respond in a timely manner or maintain reliable supply to customers. The choice between these two options is not considered to be reasonable when system reinforcement mitigates the risk with the existing infrastructure.[27]

Given the age of the Don Valley line and the NPS 26 line, their operating stress and the densely populated areas in which they are situated, Enbridge determined that a solution is required to permit reduction of the operating pressure in these lines below 30% SMYS, the industry's generally accepted "leak-rupture boundary". The proposed GTA Project allows for the lowering of operating pressures in these lines, by creating the replacement capacity required through the provision of additional paths within the system. The GTA Project permits Enbridge to reduce the pressure and extend the useful life of these assets.

The proposed facilities have significant operational benefits within the distribution system. The pressure reductions in two large vital mains improve operational flexibility and increase reliability of supply to the GTA, including the downtown core of Toronto, and improve safety.

Thus, the GTA Project protects the interests of consumers with respect to the reliability and quality of gas service and represents the rational expansion of distribution systems.

C. Entry Point Diversity

The GTA Project provides critical backup for the single largest point of risk in the Enbridge franchise – Parkway Gate Station. Parkway is the largest entry point of gas into the GTA system. At present, 58% of Enbridge's peak day volume for the GTA flows through its existing Parkway Gate Station. Further, the capacity of the remaining six gate stations supplying the GTA is insufficient to provide replacement capacity for Parkway. Without the GTA Project, a supply disruption at Parkway Gate Station would cause the loss of more than 270,000 customers.[28] Restoration of such an outage would take several weeks to months. Any such consequence is unacceptable to Enbridge as a typical home could drop below zero degrees Celsius in a little as 14 hours.[29]

[27] Exhibit A, Tab 3, Schedule 3, pages 17-18, para 32.
[28] Exhibit A, Tab 3, Schedule 1, pages 7 and 8, para. 18.
[29] Exhibit 3, Tab 3, Schedule 3, pages 7-9, paras. 13 – 17.

Enbridge retained experts, EN Engineering, to consider issues associated with reliance on the Parkway Gate Station entry point. EN Engineering confirmed that no other comparable metropolitan area in North America relies so heavily on a single gate station.[30]

The new Parkway West Gate Station, its interconnection to the Parkway North Line, and the installation of bypass regulation to integrate the Mississauga South Line, provides backup for the single largest point of risk in the Enbridge franchise. EN Engineering confirmed that the proposed facilities "can be used to transport redirected supply across the system address[ing] the major design deficiency of the system and provides an increased degree of reliability."[31]

The proposed GTA Project would put in place an alternative entry point from the Parkway West Gate Station. Following construction of the GTA Project, a supply disruption at Parkway will result in no customer losses.

Thus, the GTA Project, by creating entry point diversity, protects the interests of consumers with respect to the reliability of gas service.

(ii) Supply Path Diversity

On the upstream side of the gas supply chain, the North American gas market has undergone a fundamental shift over the past several years as a result of the availability of shale gas from Marcellus and Utica in the northeast United States. Access to this nearby supply basin and the liquid Dawn Hub is critical to residents and industries in Ontario for both supply reliability and cost savings. The GTA Project allows Enbridge to increase supply path diversity to the GTA by increasing access to more local basins and also to increase the number of supply lines. As Ms. Giridhar noted in cross-examination:

> So in looking at diversity of path, we looked at the number of lines that feed us, what proportion of total volume we are on the shipper's system. So when we look at it that way, currently there's three lines from western Canada, there's at least three lines from Dawn, and some places a fourth. There's also two lines from Niagara.
>
> So we were looking to maximize the number of lines that served us, recognizing that our volumes are going to grow seasonally, and therefore certain types of contracts are better than others.
>
> But overall, when we look at the fact that the settlement agreement results in the increased financial viability of western Canadian

[30] Exhibit A, Tab 3, Schedule 3, Attachment 4.
[31] Exhibit A, Tab 3, Schedule 3, Attachment 4, page 32, final sentence

> supply reaching us on the TransCanada long-haul path, the addition of the domestic line from Niagara and the number of total lines that will be serving us will actually go up relative to before…[32]

Thus, the GTA Project, by enhancing supply path diversity protects the interests of consumers with respect to the reliability of gas service.

(iii) Transportation Benefits

A. Benefits of a Short Haul Transportation Path

In order to minimize unutilized demand charges ("UDC") and overall gas supply costs for ratepayers, Enbridge has used discretionary services provided by TransCanada, such as Interruptible Transport ("IT") and Short Term Firm Transportion ("STFT"), to meet seasonal needs of its customers. With recent shale gas discoveries in the northeast United States, supply basins such as Marcellus and Utica offer an alternative to long haul transportation of gas, sourced in Western Canada, on the TransCanada system.

Further, as a result of TransCanada's RH-2011-003 decision, the pricing of discretionary services has become uneconomic and shippers such as LDCs have been forced to sign firm, long haul contracts to replace volumes previously supplied under discretionary services. It was noted in evidence that Enbridge is probably unique, at least among Canadian utilities, for the extent of its reliance on discretionary volumes.[33] The implications of this utilization of discretionary services were discussed by Ms Giridhar in the following testimony:

> …when we filed our evidence in December of 2012 we hadn't yet received the decision from the NEB, but it was pretty clear to us that the days of freewheeling capacity on the TransCanada system were likely over, and the Enbridge system … still relies on that kind of contracting for up to 25 percent of its peak day requirements.
>
> So it's clear to us that we need to replace capacity that we were using on a discretionary basis, non-renewable basis, partial-year basis, with capacity that's year round and firm, because the NEB has confirmed that TransCanada does not need to serve customers,

[32] 9Tr.16-17.
[33] 6Tr.159.

> has no obligation to serve, first; and two, does not need to maintain capacity if customers won't sign up for it.[34]

While Enbridge is unable to continue relying on discretionary services as it has done in the past, Enbridge must ensure that arrangements are in place to meet the peak demands of its customers. The importance of Ms Giridhar's evidence about the need to secure replacement capacity for up to 25% of peak day demand (approximately 750 TJ/day) can be seen from the evidence that a shortfall of 300-400 TJ/day on peak day will result in the loss of more than 150,000 customers.[35]

Replacing discretionary services with long haul firm transportation means that Enbridge must pay year-round demand charges on long haul transportation, to meet a need that is seasonal. The shift to shorter distances of haul for seasonal demand enabled by the GTA Project is consistent with past direction from the Board, as it helps to minimize UDC charges and facilitates competition to the long haul path.

These important points were explained by Ms Giridhar when she testified as a witness on the joint panel. As to the use of long haul firm transportation to meet seasonal needs, Ms Giridhar's evidence was as follows:

> …what we have done recently for the next two winters is to take on long-haul firm transportation to essentially meet a seasonal need that prior to this arrangement actually was sourced through short-term arrangements … .[36]

Ms Giridhar explained further that,

> …in terms of our GTA requirements, I think I've said it numerous times, that the short-haul contracts that are being contemplated for the GTA project are really displacing discretionary arrangements that we used to have. These were non-renewable, short-term, firm, peaking kind of arrangements which, in the current environment, are neither reliable nor cost-effective, so we are looking for a transition step for a couple of years of taking FT long-haul, which we do know we'll be utilizing at a very low load factor.[37]

Ms Giridhar's testimony also made clear the significant benefits that will be provided by the GTA Project when the short haul transportation path utilizing Segment A of the project is available. In this regard, she said that,

---

[34] 9Tr.53.
[35] Exhibit A, Tab 3, Schedule 3, page 11, Table 1, reproduced above, bottom right"cell".
[36] 8Tr.71.
[37] 8Tr.99-100.

> …in the absence of the GTA project, we would be paying year-round demand charges on long-haul transport that – at a buck 60. The GTA project allows us to pay short-haul demand charges ranging from 10 cents to 20 cents, so a fraction of those costs.[38]

Thus, the GTA Project, as a component of a short haul transportation path providing access to nearby supply basins to meet seasonal and peak winter needs, protects the interests of consumers with respect to prices and the reliability of gas service.

B. The GTA Project and Market Access

Market access to firm short haul transport service to closer supply basins and competitive market hubs is critical for customers in the GTA Influence Area, Enbridge's EDA service area, other parts of eastern Ontario and Québec. It allows customers to have access to more diversified supply sources and contracting avenues, which could enhance the competitiveness of industry and stimulate growth.

Mr. Henning laid out in no uncertain terms just how important market access is for the public interest of the Province of Ontario. His oral evidence in this regard was as follows:

> …the ICF analysis in the base case is showing … pent-up demand for moving gas along [the short haul] path. We've been showing it for a number of years now, where the market is desiring access to the lower-cost gas supplies in Ontario.
>
> And that's quite important. One point I'd just like to make about the ICF forecast, this was not a forecast that was done for Union Gas. This is our base case which we release to all of our …[clients].
>
> …it's quite important to the consumers in Ontario because absent that, … if you're forced all the way back to Empress and collecting those demand charges while you're shrinking that basis, Ontario will have some of the highest gas prices in all of North America. And that will affect industry in Ontario, it will put upward pressure on electricity prices in Ontario.[39]
>
> (Emphasis added.)

[38] 9Tr.22.
[39] 2Tr.154-155

Mr. Henning's evidence emphatically points out the importance of market access to closer gas supply basins and market hubs insofar as energy prices in Ontario are concerned. The importance of market access goes beyond energy prices, however: it is also important for the purposes of supply flexibility and security of supply. As stated by Mr. Rhéaume of Gaz Métro,

> About a year ago, Gaz Métro went to its regulators with various intervenors to discuss where Gaz Métro should supply its market. Obviously it was the issue of Empress versus Dawn. After a long process at the Régie, the Régie concluded that Gaz Métro needed to shift its supply from Empress to Dawn.
>
> …very simply, the reasons were twofold. First about a $100 million of savings every year for Quebec customers. Second, more flexibility and security of supply; being able to service the market from Dawn than Empress.[40]

The issue of market access to short haul service has been a significant uncertainty for shippers within Ontario and beyond for some time. Efforts to resolve this uncertainty have culminated in an agreement as summarized in the Settlement Term Sheet (the "Settlement") among Enbridge, Union, Gaz Métro and TransCanada that has been filed in these proceedings.[41] The Settlement is a significant step forward in resolving issues about access to short haul services and it charts a course that sees the GTA Project filling a key role as a component of a short haul transportation solution. As stated by Ms Giridhar:

> The relevance the settlement agreement is that it has charted a path forward for market access. This Board, in a ruling to Union Gas last year or the year before – last summer, urged the LDCs to work with TransCanada on a rational expansion of our systems.
>
> We have done that. We have identified a path forward for market access. The GTA Project was originally filed as a distribution project of an NPS 36. It is now an NPS 42. For less than a 10 percent incremental cost, we're able to accommodate that market access and provide significant cost savings to our customers …[42]

The Settlement enables an orderly transition that upholds the regulatory principle of fair cost recovery and provides a framework whereby all parties remain financially viable through the transition period. The Settlement also recognizes the importance of maintaining access to long

[40] 8Tr.52.
[41] Exhibit K1.1, Attachment.
[42] 9Tr.98-99.

haul supplies and the diversity provided by multiple paths. Ms Giridhar elaborated on the orderly transition contemplated by the Settlement; she said that,

> …you really need to take the bigger perspective here. It's not just what Ontario will bear, versus Quebec. It's not just what Union Gas would bear versus EGD; it's about making sure we have a structured transition to short haul and a result where there's equal opportunity and costs being shared by all of us. And that's what this term sheet does.
>
> And that's the extent of the relevance to the applications.[43]

Ms Giridhar went on in her oral evidence to address the relationship between the transition to short haul transportation and the GTA Project. Her comments on this subject were as follows:

> The applications are structured to provide distribution service to the GTA and market access to downstream markets. Market access is required. These applications provide for an economical way to provide market access, through a single piece of pipe that can be upsized at low cost to meet downstream demands. We all know and understand that the alternative of building a smaller piece of pipe and then having to lay another pipe right next to it to create the market access that Quebec has been mandated to take is going to be a more expensive option. That's the extent to which the Board needs to consider the settlement terms sheet. It removes uncertainty. It allows for efficient build-up of facilities to meet distribution requirements and market access.[44]

Enbridge's evidence has also addressed market access for direct purchase customers. This subject was discussed when Ms Giridhar was examined by Mr. Wolnik. Ms Giridhar's response to questions from Mr. Wolnik in this regard was as follows:

> …the GTA project is reserving 200 tJs per day for our direct-purchase customers for delivery into the system, into the GTA system, and so we have had some level of contact with our direct-purchase customers already, and we have a commitment on approval of these facilities to initiative a more full consultative with our direct-purchase customers to understand what their needs are and how we can ensure the delivery arrangements work for them …

[43] TCTr.(Sept. 13/13)41.
[44] TCTr.(Sept.13/13)41

> I think we are certainly willing and wanting to engage with all of our customers to understand how best we can meet the delivery requirements in this changing environment. We explicitly factored that into the GTA project. To the extent that we need to do more of that, we are – the terms sheet certainly allows us to do it.[45]

Thus, the GTA Project enables market access and thereby protects the interests of consumers with respect to prices and indirectly facilitates competition in the sale of gas to users. The Settlement lays out a course for an orderly transition to short haul gas transmission, but the GTA Project can and should proceed independently of the Settlement.

(iv) Efficiency and Optimization Benefits

In the evidence quoted above, Ms Giridhar noted that utilization of the GTA Project to accommodate market access provides significant cost savings to Enbridge's distribution customers. As demonstrated in the response to Undertaking J6.9, shared usage of Segment A for distribution and transmission purposes lowers the distribution revenue requirement by $15.1 million in the first year, as compared to the 'distribution only' NPS 36 Segment A revenue requirement. Transmission shippers similarly benefit from economies of scale through shared usage of Segment A.

At a more general level, the coordinated build-out of facilities by Enbridge, Union and TransCanada results in an optimization of existing and proposed facilities for the overall benefit of ratepayers of Enbridge, Union, Gaz Métro and others. In its EB-2011-0210 Decision and Order (Union Gas 2013 Rates), the Board encouraged cooperation among Union, Enbridge and TransCanada with regard to natural gas infrastructure (specifically, in the context of that case, Union's Parkway West project).[46] The evidence in this case is that Union, Enbridge and TransCanada have indeed worked together to coordinate a rational expansion of their respective systems.[47] The evidence also confirms that Enbridge has complied with the Board's guideline[48] regarding assessment of the potential impacts of a proposed natural gas pipeline on existing transportation pipeline infrastructure.[49]

The infrastructure optimization benefits of the proposed GTA Project were summarized by Ms Giridhar in the following testimony:

---

[45] 9Tr.30-31.
[46] EB-2011-0210-Decision and Order, October 25, 2012, page 126.
[47] 9Tr.98.
[48] Ontario Energy Board *Filing Guidelines on the Economic Tests for Transmission Pipeline Applications* (EB-2012-0092), February 21, 2013, Guideline 14.
[49] 9Tr.85-86.

> …this design for segment A of the GTA project provides for rational infrastructure planning for transmission purposes. It avoids duplicative facilities that would otherwise be required if market access were to be provided independent of this project. It reduces environmental footprint, reduces impacts in communities that live along these lines, and to that extent, there's significant benefits from optimizing the GTA project for market access, in addition to building for distribution needs.[50]

Thus, the GTA Project, through the collaborative build, protects the interests of consumers with respect to prices, and facilitates the rational expansion of transmission and distribution systems.

(v) Economic Benefits: Project Cost and Feasibility

Enbridge's forecast of the cost to construct the GTA Project is $686.5 million. This cost forecast is based upon the complete GTA Project proceeding upon the proposed timetable. Delays in approvals or changes to the scope of work may increase unit pricing and total cost. The cost estimate was not the subject of any meaningful challenge or criticism during the proceedings.

Enbridge's evidence also includes economic feasibility calculations for the GTA Project performed in a manner consistent with both E.B.O. 188 and E.B.O. 134.[51] These calculations show that the Profitability Index (PI) of the project is 1.73 the Net Present Value (NPV) is $667 million.

Enbridge provided a number of sensitivity analysis scenarios reflecting adjustments to major benefit and capital amounts.[52] These scenarios include: a) increasing all capital by 10%, including future reinforcements, mains and service; b) eliminating the transportation services revenue from the shippers on Segment A; and c) reducing transportation savings by both 25% and 50%. In all cases, the project is still highly feasible. In fact, the combination of a 10% increase in all capital, elimination of transportation service revenue on Segment A and a 50% decrease in forecast transportation savings still passes the feasibility requirement.

Due to the positive feasibility results, only a Stage 1 analysis was performed. However, the evidence is that Stage 2 benefits would be substantial for consumers utilizing natural gas as opposed to other fuels.[53] Furthermore, total bill impacts are positive overall, and are at reasonable levels for all ratepayers given the benefits of the project. Other shippers will also

[50] 4Tr.89.
[51] Exhibit E, Tab 1, Schedule 1.
[52] Exhibit A, Tab 3, Schedule 9, Attachment 3.
[53] Exhibit E, Tab 1, Schedule 1.

have access to economic short haul supplies for their needs, creating additional economic benefits over and above those submitted for the application.

The important reliability benefits that the GTA Project delivers were not monetized, and are not part of the economic feasibility calculations. However, there can be no doubt that the project provides additional value for ratepayers through enhanced safety and reliability of service.

In its response to Undertaking J6.X, Enbridge evaluated the impacts of the Settlement on gas supply benefits under a variety of basis and utilization assumptions. In all cases, the gas supply benefits were still positive. In fact, the analysis identifies an additional $38-69 million/year in gas supply benefits as a result of the Settlement attributable to serving the Eastern Delivery Area (EDA).

Thus, the GTA Project is economically feasible, and the feasibility of the project has been shown to be robust under a number of sensitivity scenarios.

(vi) Summary of Need and Benefits

This review of the need for, and benefits of, the proposed GTA Project brings out clearly and forcefully that the project is in the public interest. The multi-faceted and multi-layered benefits of the project encompass distribution benefits, transportation and upstream supply benefits and broad public interest considerations. Indeed, it is remarkable, and perhaps unique, that a gas infrastructure project in Enbridge's franchise area is able to deliver the wide and diverse range of benefits offered by the GTA Project -- all of which make out a compelling case that the project is in the public interest.

5. Technical, Land and Routing Issues

During the course of these proceedings, certain elements of Enbridge's leave to construct application were left to stand essentially uncontested and unchallenged. Elements of the application that were included in the Issues List but that do not appear to be controversial or contested are: Design Specifications, Environmental matters, Consultations, First Nations and Metis Consultations, Routing, Landowner matters and the Form of Agreement to be offered to landowners. Further details regarding these elements of the application can be found in Appendix D to this argument..

With respect to these technical, land and routing issues, Enbridge submits that:

a) the design specifications for the GTA Project are appropriate;

b) the GTA Project fully complies with the Board's environmental guidelines;[54]

c) consultations with stakeholders have been carried out in an appropriate manner; and

d) landowner concerns have been addressed in an appropriate manner.

Enbridge has offered, or will offer, the form of agreement provided in the evidence[55] to each of the landowners affected by the GTA Project and Enbridge requests that the Board approve the form of agreement pursuant to section 97 of the OEB Act. Enbridge will proceed to complete agreements with landowners, and to obtain permits, following approval of the project by the Board, should approval be granted.

Thus, there are no outstanding issues with respect to the technical, land and routing aspects of Enbridge's application.

6. Alternatives

Enbridge began planning for the GTA Project in 2010 and it conducted an extensive and comprehensive review of alternatives. The written evidence describes the various alternatives that were considered and sets out the reasons why each alternative was not pursued as the preferred option.[56]

Among potential alternatives to the proposed project, DSM was given particular attention during these proceedings. Enbridge has a long history of providing DSM and conservation programs, but DSM cannot offset the need for the GTA Project. In fact, the currently planned DSM activities and conservation that result from Enbridge's Board-approved DSM program have already been included in the demand forecast used for the purposes of planning and designing the facilities comprising the GTA Project.[57]

The issues with Enbridge's distribution system that the GTA Project is intended to address arise from peak system design loading. Indeed, a gas distribution system must be designed to meet the loads that will be imposed on it at peak times of gas consumption by customers in order for the

[54] *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario* (Sixth Edition, issued January 24,2011). Enbridge has committed to implementing the mitigation measures recommended by Dillon Consulting Limited: see Exhibit B, Tab 2, Schedule 2 and see Appendix D to this argument.
[55] Exhibit D, Tab 1, Schedule 2, Attachment pages 5 to 15.
[56] Exhibit A, Tab 3, Schedule 7.
[57] Exhibit A, Tab 3, Schedule 7, page 2.

distributor to fulfill its obligation to serve. Enbridge's DSM programs, however, are focused on lowering total annual consumption in order to be economic over the life of the program.[58]

Ms Oliver-Glasford testified about the inability of DSM programs to meet the system needs that the GTA Project is designed to address. In response to a question about DSM programs that affect the peak hour, she said that,

> …it's standard practice in the utility world to design and measure and deliver programs that impact annual savings. That seems to be the commonplace. In fact, I'm not aware of any DSM programs that do actually target programs for peak load.
>
> In addition, what we're talking about here is one of the big priorities for the ratepayers in particular has been cost-effectiveness. In order to start making the enormous changes that you are referring to, to completely overhaul our DSM approach, it would require a lot of spending in order to understand the various load profiles for the different technologies – we talked about the data enabling and smart meters – and that we don't have for natural gas in this jurisdiction.
>
> So there's a lot of pieces there that would entail a great deal of cost, a great deal of research.[59]

In short, DSM cannot offset the need for the GTA Project. Existing programs are already taken into account in the forecast of load growth in the GTA Influence Area. The suggestion that there could be a complete overhaul of the DSM approach for gas distributors in Ontario is speculative and out of step with considerations of cost-effectiveness, and, in any event, does not represent a realistic alternative to meeting the needs of Enbridge's distribution system within the time-frame required for the GTA Project.

The notion of DSM as an alternative to the GTA Project can be plainly seen to be unrealistic when considered in light of the need to lower the pressure in Enbridge's Don Valley line. The capacity reduction associated with this lowering of pressure is the equivalent of 160 TJ/day, which is an order of magnitude beyond the capacity that could conceivably be offset through conservation initiatives.

Mr. Fernandes addressed these points during his testimony at the Technical Conference; he said that,

---

[58] Exhibit A, Tab 3, Schedule 7, page 2.
[59] 7Tr.3-4.

> …if you were to look at the year-over-year growth in peak demand we have in our forecast, it's approximately 18 tJs per day growth per year. So rough order of magnitude, it's about double what we expect or what we estimate our current DSM programs are achieving in terms of load reduction. …
>
> When we talked about the other aspects of the project over and above pure load growth, one of the key items that we have on the table for the project is the pressure reduction on some of our older high stress lines.
>
> The evidence spoke to a 160 tJ per day reduction in terms of capacity in order to reduce the pressure in the Don Valley line. … So the order of magnitude we're looking at in terms of our load growth, or what we think energy efficiency measures are doing compared to the pressure reduction is very large. The pressure reduction is equivalent to about nine years of our forecast load growth.[60]

Thus, the evidence shows that the proposed GTA Project is superior to any alternative.

7. Approvals Requested and Timing

Enbridge has requested approval of the GTA Project prior to mid-December 2013 in order for the project to meet the in-service date of November 2015. Enbridge's forecast is that, in the absence of the proposed facilities, it will not be able to meet its design day conditions at Station B during the 2015/16 winter. The November 2015 in-service date is based on Enbridge's schedule of the activities required to complete the GTA Project[61] and no party took issue with the time requirements included in the schedule.

Any delay in the proposed in-service date for the GTA Project will cost distribution ratepayers approximately $159 million for lost transportation savings in the first year alone.[62] Enbridge seeks a Board decision by mid-December in order to proceed with procurement of long lead-time materials and resources required for the construction of the project. Enbridge continues to work toward the scheduled in-service date in order to realize the benefits of the GTA Project as quickly as possible, including very significant savings from 2015 to 2025.[63]

---

[60] TCTr.(June 13/13)103-104.
[61] Exhibit C, Tab 2, Schedule 2.
[62] Exhibit A, Tab 3, Schedule 9, Attachment 1, page 5, Table A5 (2016 savings).
[63] Exhibit A, Tab 3, Schedule 9.

The proposed facilities with NPS 42 pipe for Segment A, utilized as distribution only, still pass the economic feasibility test, with a PI of 1.56 and an NPV of $509 million.[64] These benefits will begin accruing to ratepayers immediately, even without the downstream facilities required to accommodate transportation services on Segment A. With the downstream facilities in service, the transportation benefits of Segment A can be realized and the financial benefits to ratepayers become even better.

Thus, the in-service date of November 2015 is critical to deliver the benefits of the GTA Project.

Enbridge has also applied for approval of the rate methodology for the proposed Rate 332 transportation service on Segment A of the GTA Project.[65] Approval of the proposed new Rate 332 Contract Demand (CD) charge is not requested in these proceedings, but Enbridge submits that it is appropriate for the Board to consider the rate methodology, given the extensive record of evidence filed in this case that provides context for a determination regarding rate methodology.

The rationale for the proposed rate methodology is explained in the evidence.[66] Enbridge proposes that the rate will recover the fully allocated revenue requirement for Segment A. Enbridge's proposal follows Board-approved cost allocation methodologies, allocating 60% of the assets and revenue requirements of Segment A to transmission customers and 40% to distribution customers. In proportion to the amount of capacity reserved for them, transportation customers would be charged 60% of the fully allocated revenue requirement. Enbridge would recover 40% of the fully allocated revenue requirement from ratepayers other than Rate 332 customers

Thus, the rate methodology of Rate 332 is consistent with cost allocation principles and the principles of just and reasonable rates.

8. Conclusion

Enbridge submits that a compelling case has been made that the proposed GTA Project is in the public interest and that, as noted in the submissions above, the project advances the statutory objectives for gas set out in the OEB Act.

Should the GTA Project not be constructed, the consequences that would ensue, from a distribution perspective, include the following:

[64] Exhibit A, Tab 3, Schedule 9, Attachment 3, Column 5.
[65] Exhibit E, Tab 1, Schedule 2.
[66] Exhibit E, Tab 1, Schedule 2.

a) insufficient pipeline capacity to meet expected customer growth in 2015 and beyond;

b) an inherently less reliable and less safe distribution system, with a risk of large-scale firm customer outages;

c) lost ratepayer benefits due to the need to contract for long haul transportation service to meet seasonal needs; and

d) a lack of appropriate contingency at Parkway West, the major point of entry to the distribution system, also with a potential consequence of large scale customer outages.

Should the GTA Project not be constructed, the consequences that would ensue, from a transmission perspective, include the following:

a) higher costs to distribution ratepayers resulting from lost synergies associated with utilizing Segment A for transmission and distribution purposes;

b) loss of a critical component of the short haul path that is required for market access to nearby, emerging supply basins;

c) loss of upstream reliability benefits associated with increasing the number of discrete paths serving Ontario; and

d) a return to tolling uncertainty.

The GTA Project improves system reliability and safety, provides additional capacity to meet growth to 2025, provides operational flexibility and permits greater market access. The economic feasibility of the project is robust. It is part of a coordinated build-out of infrastructure that brings efficiency and its integrated design satisfies diverse needs. It is superior to other alternatives.

For all of these reasons, Enbridge requests that the Board grant leave to construct the GTA Project to allow for an in-service date of November 2015, approval of the form of land agreement and approval of the methodology for Rate 332. Enbridge also supports the applications made by Union and, in particular, notes the interdependencies between Union's proposal and Enbridge's proposed GTA Project that are summarized in the response to Undertaking J9.6.[67]

[67] See also 4Tr.110-111.

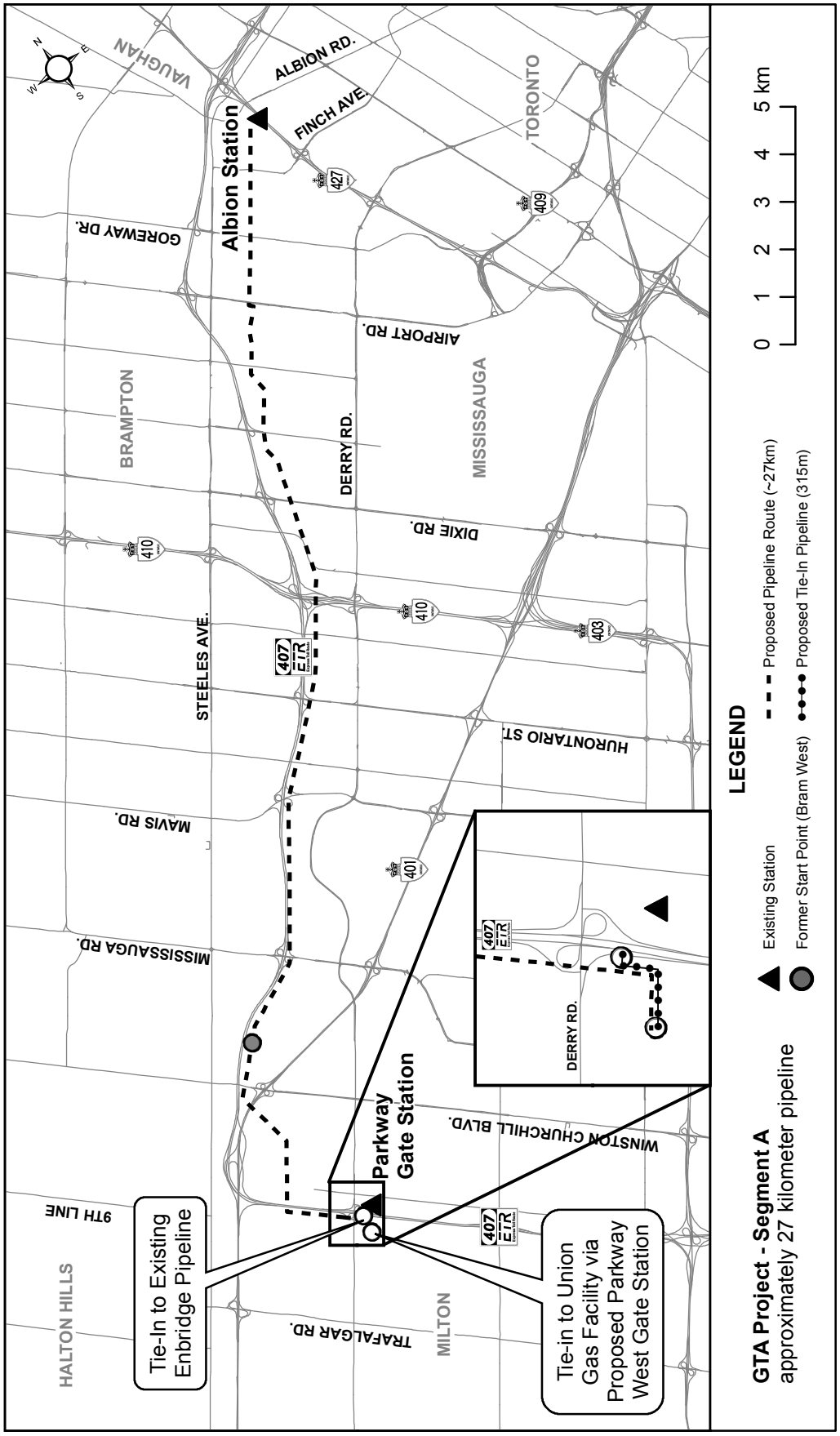
All of which is respectfully submitted.

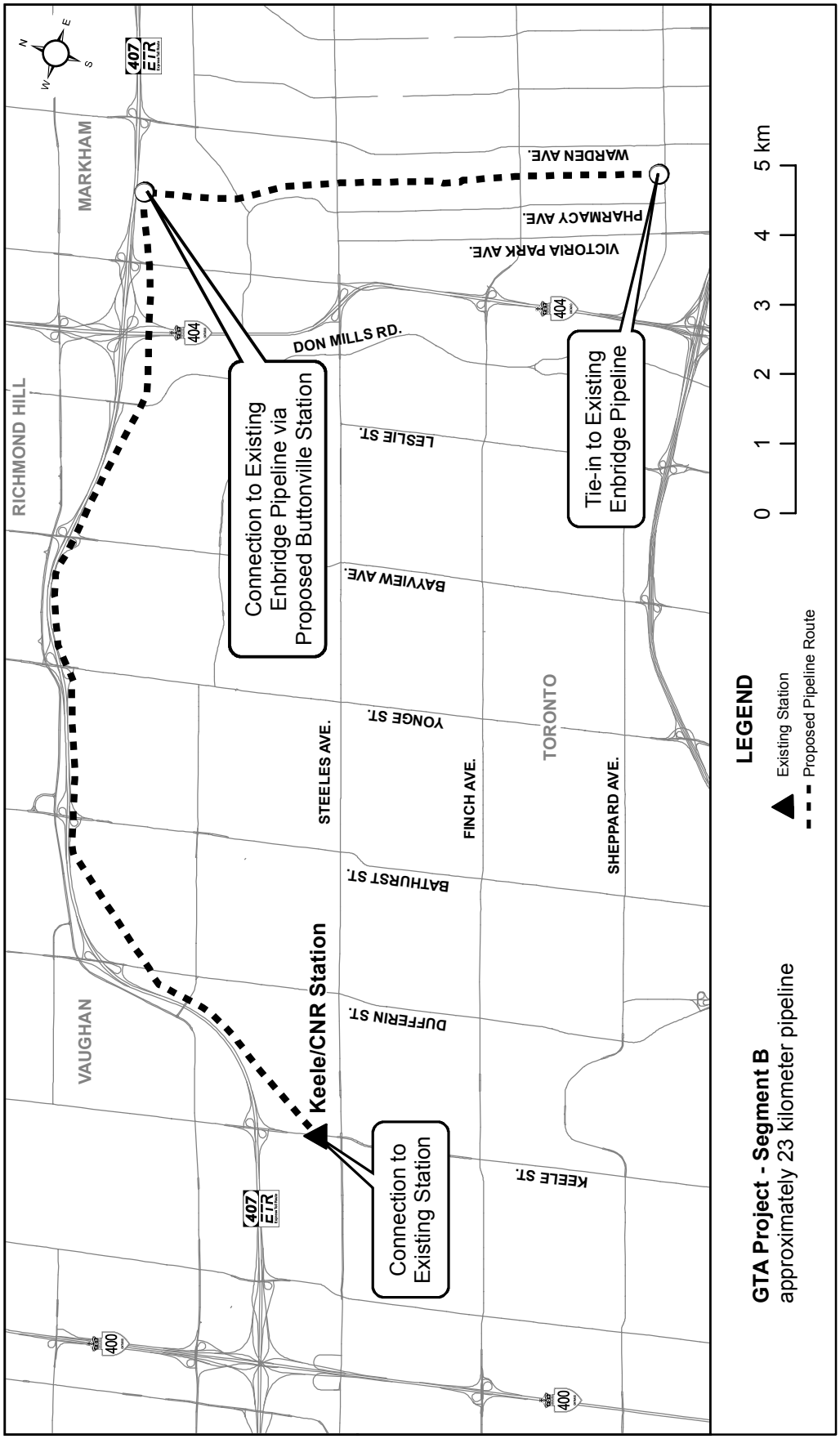
October 21, 2013

(Original Signed)
_____

(Original Signed)
_____

Scott Stoll and Fred D. Cass
Counsel for Enbridge Gas Distribution Inc.


Albion Station
Parkway Gate Station
ALBION RD.
FINCH AVE.
GOREWAY DR.
AIRPORT RD.
DERRY RD.
DIXIE RD.
STEELES AVE.
HURONTARIO ST.
MAVIS RD.
MISSISSAUGA RD.
WINSTON CHURCHILL BLVD.
9TH LINE
TRAFALGAR RD.
VAUGHAN
BRAMPTON
MISSISSAUGA
TORONTO
HALTON HILLS
MILTON
427
409
410
403
407 E.T.R.
401
Tie-In to Existing Enbridge Pipeline
Tie-in to Union Gas Facility via Proposed Parkway West Gate Station
LEGEND
Existing Station
Proposed Pipeline Route (~27km)
Former Start Point (Bram West)
Proposed Tie-In Pipeline (315m)
0 1 2 3 4 5 km
GTA Project - Segment A
approximately 27 kilometer pipeline


MARKHAM
RICHMOND HILL
VAUGHAN
TORONTO
407 ETR
404
400
DON MILLS RD.
WARDEN AVE.
PHARMACY AVE.
VICTORIA PARK AVE.
LESLIE ST.
BAYVIEW AVE.
YONGE ST.
STEELES AVE.
FINCH AVE.
SHEPPARD AVE.
BATHURST ST.
DUFFERIN ST.
KEELE ST.
Keele/CNR Station
Connection to Existing Enbridge Pipeline via Proposed Buttonville Station
Tie-in to Existing Enbridge Pipeline
Connection to Existing Station
0 1 2 3 4 5 km
LEGEND
Existing Station
Proposed Pipeline Route
GTA Project - Segment B
approximately 23 kilometer pipeline

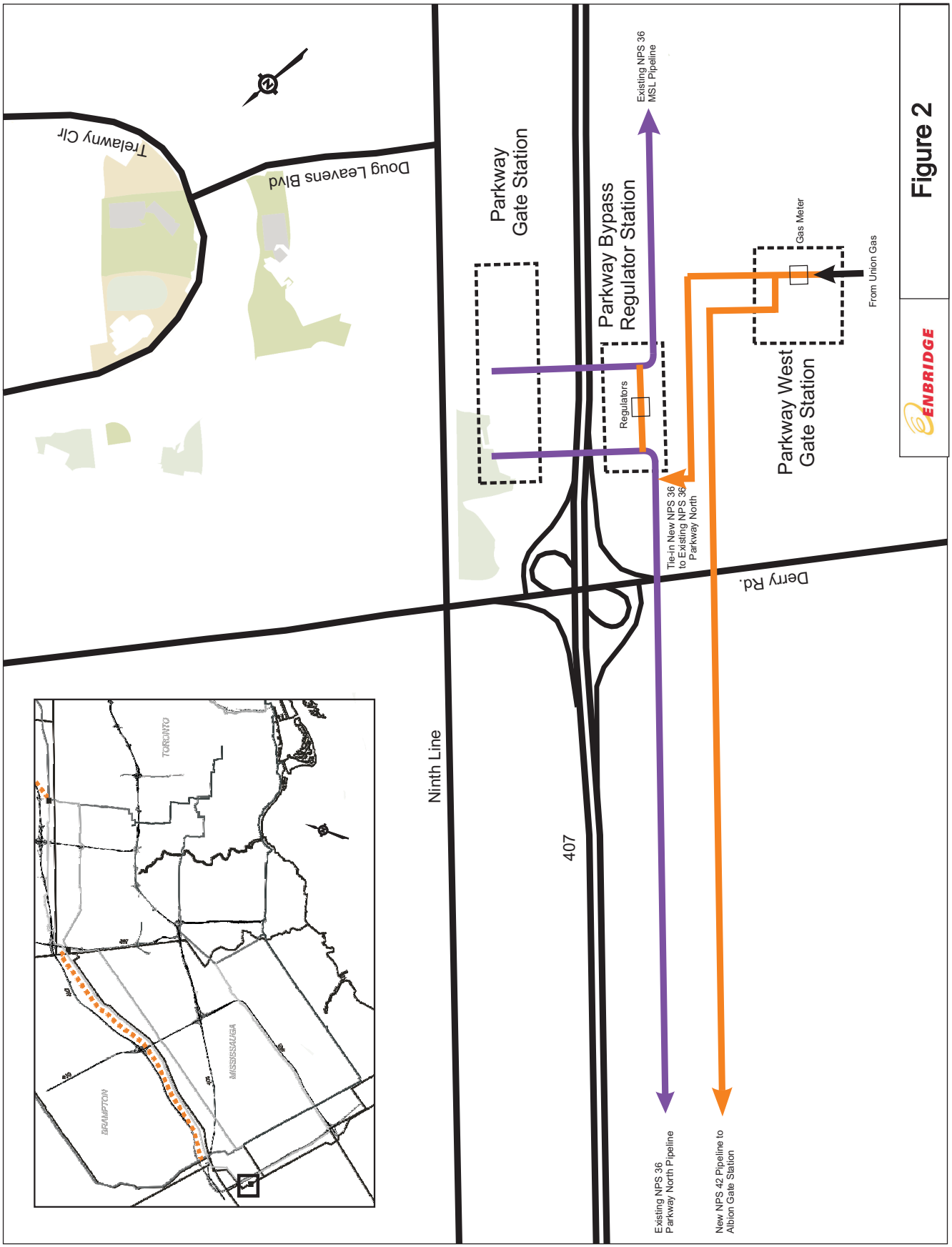


Figure 2
ENBRIDGE
Parkway Gate Station
Parkway Bypass Regulator Station
Regulators
Existing NPS 36 MSL Pipeline
Gas Meter
From Union Gas
Parkway West Gate Station
Tie-in New NPS 36 to Existing NPS 36 Parkway North
Derry Rd.
Ninth Line
407
Existing NPS 36 Parkway North Pipeline
New NPS 42 Pipeline to Albion Gate Station
Treelawny Clr
Doug Leavens Blvd
TORONTO
MISSISSAUGA
BRAMPTON

APPENDIX D
TECHNICAL, LAND AND ROUTING ISSUES

Design Specifications

The GTA Project design conforms to the requirements of CSA Z662 *Oil and Gas Pipeline Systems* and Ontario Regulation 210/01 *Oil and Gas Pipeline Systems*. The technical design of the pipelines and associated facilities meet the applicable legal requirements and have not been challenged by any party. Enbridge submits that the design specifications for the GTA Project are appropriate.

Environmental Guidelines for Hydrocarbon Pipelines and Facilities in Ontario

The Board's *Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario* (Sixth Edition, 2011) (the "Guidelines") prescribe the process that utilities are to follow in determining the route and location for pipelines and related facilities. Issue D1 in these proceedings is whether the proposed facilities address the Guidelines. Enbridge engaged Dillon Consulting Limited ("Dillon"), an independent environmental consultant with significant pipeline experience, to conduct the environmental study and prepare the environmental report ("ER") which was filed as Exhibit B, Tab 2, Schedule 1. Attachment 1.

The unchallenged conclusions of the independent environmental consultant, Dillon, are summarized as follows:

> Many significant socio-economic impacts have been avoided by locating the proposed facilities within designated utility corridors and in previously disturbed areas. Mitigation measures, however, must be implemented to protect against potential adverse environmental effects along the Preferred Routes.….
>
> A cumulative effects assessment was also completed as part of the Study. The assessment concluded that while the construction of the pipeline will likely have temporary effects (dust, noise) on residents and businesses in the area, the project is unlikely to have significant cumulative effects once the mitigation measures are applied mostly due to the location of the Preferred Routes within the designated utility corridors. The assessment also concluded that any construction effects will be short-term and with the

> implementation of the mitigation measures, will be minor with no lasting cumulative effects.[1]

Enbridge filed updates to the ER to address changes to pipe size and the initiation point. Again, the potential impacts, mitigated appropriately, are not significant. Enbridge has committed to implementing the mitigation measures recommended by Dillon.[2] Enbridge submits that the Guidelines have been addressed satisfactorily.

Consultation

Section 5 of the ER describes the extensive consultation efforts undertaken by Enbridge and Dillon. Consultation involved hundreds of thousands of mailouts, nine public meetings, 35 newspaper advertisements, as well as numerous individual meetings, telephone conversations and emails. The level of engagement was unprecedented for a facilities application. In the end, relatively few parties intervened and no intervenor has expressed concern regarding the adequacy of consultation or the selection of the Preferred Route.

In addition, Enbridge published and served notice in compliance with the Board's procedural orders. Enbridge will continue to consult with agencies, permitting authorities, landowners and residents throughout the duration of the project. Enbridge submits that it has consulted appropriately for the granting of leave to construct.

First Nation and Métis Consultation

Enbridge and Dillon undertook significant efforts to consult with First Nations and Métis. Only two First Nations intervened. Neither actively participated and one withdrew as an intervenor. It is reasonable to conclude there is no concern that the First Nation or Métis consultation has been anything less than adequate.

D.R. Poulton and Associates Inc. ("Poulton") was retained to complete the Stage 1 Archaeological Assessments for Segments A and B.[3] The work was completed under Archaeological Consulting License #P242 issued to Mr. Chris O'Neill of Poulton. Enbridge has committed to the completion of the Stage 2 Archaeological Assessment during 2013 and to inform First Nations and Métis of the assessment results.

[1] Exhibit B, Tab 2, Schedule 1, Attachment 1 page xii to xiii.
[2] Exhibit B, Tab 2, Schedule 2.
[3] Exhibit B, Tab 2, Schedule 1, Attachment 2.

Routing, Landowners and Form of Agreement

The ER, Chapter 4, sets out the methodology and findings for the selection of the Preferred Route. The Preferred Route was determined by Dillon working with Enbridge and generally occupies previously disturbed areas – much of it along existing utility corridors. Several landowners intervened in these proceedings. The most active were the City of Toronto, the City of Markham, Markham Gateway Inc., Metrolinx and 8081 Investments Ltd ("8081").

The City of Toronto withdrew from these proceedings upon receiving certain assurances from Enbridge.[4] Enbridge filed, in confidence, minutes of settlement with Markham Gateway Inc. with respect to the routing of the proposed pipeline across lands east of Yonge Street and west of the existing railroad tracks. Metrolinx participated in these proceedings and asked questions at the Technical Conference, but Enbridge is not aware of any outstanding issues in these proceedings involving Metrolinx.

With respect to 8081, Enbridge confirmed that the GTA Project would not impact 8081's property located west of Rodick Road in the City of Markham.[5] On that basis, 8081 was content to permit the hearing to continue without any further examination of or objection to the routing. Enbridge submits that it has dealt with all landowner concerns appropriately.

Section 97 of the OEB Act requires an applicant for leave to construct to satisfy the Board that it has offered or will offer each affected landowner a form of agreement approved by the Board. Enbridge filed the form of agreement at Exhibit D, Tab 1, Schedule 2, Attachment pages 5 to 15. This form of agreement has been approved by the Board in previous Enbridge leave to construct proceedings[6] and no intervenors questioned or challenged any provision of the form of agreement.

Enbridge has offered or will offer the form of agreement filed in the evidence (at Exhibit D, Tab 1, Schedule 2, Attachment, pages 5 to 15) to each of the landowners affected by the GTA Project. Enbridge requests that the Board approve the form of agreement. Enbridge will proceed to obtain permits and agreements with landowners following approval by the Board.

[4] Letter from City of Toronto dated August 27, 2013.
[5] Enbridge letter to the Board dated September 24, 2013.
[6] For example, EB-2012-0438 (Exhibit D, Tab 1, Schedule 3, Attachment); EB-2012-0382 (Exhibit D, Tab 1, Schedule 3, Attachment); and EB-2012-0099 (Exhibit D, Tab 1, Schedule 3, Attachment).