INTRODUCTION

In its March 21st application, Enbridge Gas Inc.(EGI) requested leave to construct approximately 20 km of NPS 36 natural gas pipeline from the Dawn Operations Centre to the Corunna Compressor Station[1]. The application proposed the replacement of up to seven existing vintage compressors. The estimated cost of the project is approximately a quarter of a billion dollars.

The Federation of Rental-housing Providers of Ontario (FRPO) has reviewed the application and participated in the subsequent discovery process. In the following submissions, FRPO respectfully submits that while there may be a need to enhance the reliability of Corunna deliveries to Dawn, EGI has not fulfilled its onus to demonstrate that this approach is in the public interest. We encourage the Board to deny the application at this time until EGI can produce a stronger evidentiary basis for the best alternative. This would likely be in conjunction with its soon to be produced Asset Management Plan (AMP) that is expected to be submitted in the upcoming rebasing proceeding.

ISSUE 1: NEED - EGI EVIDENCE DESCRIBES A WANT NOT A NEED

FRPO understands the importance of reliable storage services for Ontario. As a result, given EGI's assertions about compressor reliability, we strived to understand EGI's concerns and impacts on the Ontario market and the public interest. In our respectful submission, below is a summary of our efforts in reviewing the evidence that the company made available which provided us the conclusion that the Project is not a Need but a Want.

Evidence in this Application of Actual Performance Does Not Demonstrate Need

Natural gas storage facilities are designed to meet seasonal load-balancing needs and peak day deliverability. The focus of the evidence, the Project design and the information sought through discovery, was the issue of peak day deliverability. Dependability of compressors, in combination with delivered supply, contribute to the reliability of storage hubs to meet requirements. Our views on peak day reliability are as follows:

- **No Evidence of Failures Leading to Interruption of Firm Service**
  A measure of reliability is historical performance. In our interrogatories, we asked about compressor failures creating a short notice limitation to storage services. The company could not provide any evidence of this type of incident, only some history on downtime, but did state "*The Company has had to curtail Firm in-franchise storage and distribution services or firm ex-franchise services at the Dawn Hub*" [2].

[1] Exhibit B Tab 1, Schedule 1, pg. 3
[2] Exhibit I.FRPO.7

Noting the distinction of the Dawn Hub, as opposed to curtailments resulting from failures of the Corunna compressors, we asked with more precision at the Technical Conference. EGI provided "*There have been no Operational Flow Orders ("OFO") issued to ex-franchise customers caused by an unplanned outage of a compressor unit at the CCS*[3]." Notwithstanding the use of the term OFO[4], the statement confirms that compressor failures have not led to interruptions to ex-franchise customers resulting from an unplanned outage.

- **Both Dawn and Corunna have Loss of Critical Unit Protection**
  While it may be argued that unplanned compressor outages have not been encountered on a peak day, without better correlation of outage timing to conditions, it could be that the Corunna site operated as it should using Compressor K711[5] when an unplanned outage occurred[6]. With the stringent design assumptions laid out in response to Exhibit ED.1, it is clear that EGI has Loss of Critical Unit protection with K711.

Evidence in Previous Applications Points to a Risk Managed Evolution

On the issue of replacement urgency, EGI provides that it "identified increasing reliability and obsolescence concerns with compressor units K705-708 as well as employee safety concerns" in Phase 2 of its 2022 Rates proceeding[7]. This identification was filed in a two paragraph section entitled Dawn to Corunna Strategy Development as part of an Asset Management Plan (AMP) Addendum[8]. However, when FRPO tried to understand these increasing concerns as part of their submitted AMP Addendum, EGI responded that they were not seeking relief for the Corunna project[9] in that proceeding. As a result, one needs to look back to the Company's views in the full AMP.

- **Compressor Maintenance was a Viable Alternative in Last AMP**
  EGI filed a full AMP in phase 2 of the 2021 Rates application[10]. In addressing the operating reliability aspect, EGI provided under their category of "*Replacement Renewal/Strategy: Overhauls recommended by SMA* (Subject Matter Experts) *based on condition findings*[11]" and differentiated its vintage compressors. They

[3] Exhibit JT1.1
[4] The term Operational Flow Order (OFO), to our knowledge, is not referenced in EGI's contracts nor General Terms and Conditions for ex-franchise customers. OFO is however defined in in-franchise rates 125 and 300 in the Enbridge Gas Handbook which defines customers obligations in a operational constraint scenario
[5] Exhibit I.ED.1 a) & b)
[6] Exhibit I.FRPO.8 provides utilization of compressor when other compressors are out of service, but it does not designate whether it is a planned or unplanned outage
[7] Exhibit I.PP.4 a)
[8] EB-2021-0148 Exhibit B, Tab 2, Schedule 3, pg.8
[9] EB-2021-0148 Exhibit I.FRPO.21
[10] EB-2020-0181 Asset Management Plan 2021-2025
[11] EB-2020-0181 Asset Management Plan 2021-2025, Section 5.5.4 Storage and Transmission Operations Condition and Strategy Overview, p. 190

found that K701-703 would need to be replaced but K704-710 would not, based on different lean burn technologies[12].

Moreover, on the issue of compressor safety risks that EGI has highlighted in this proceeding, the AMP stated "***Employee and Contractor Safety Risk and Public Safety Risk****: The safety risk related to loss of containment from the compressor units is considered, however, the chance of a significant leak is low. Safety systems reduce the chance of an escalation even further.[13]"*

While we understand that EGI has filed additional evidence in the current proceeding, neither ratepayer representatives nor the Board have experts engaged to test some of the subjective imperatives around replacement. Very importantly, as opposed to our opinion on these subjective matters, we provided the company's statement: *"Risk treatment is the modification of identified risks, ranging from day-to-day operational activities undertaken by operators and field personnel to inspect equipment, to a large capital project required to replace an existing asset. …. These risk treatment options are considered in the Asset Investment Planning and Management process.[14]"*

In summary, with no history of interruptions caused by unplanned compressor outages, loss of critical unit protection in place and the companies own Asset Management Plan identifying a measured approach, FRPO respectfully submits that EGI has not established the Need for the project. Instead, we believe the increasing obsolescence of the compressors in the Corunna Compressor Station ought to be considered as part of the company's next AMP that is expected to be filed in the next couple months with its rebasing application.

ISSUE 2: ALTERNATIVES – AVAILABLE EVIDENCE SKEWED TO PROJECT

In a complex project to consider the most appropriate, risk-informed, economically effective approach, one would expect considerable analysis of the physical means to provide the continuation of uninterrupted important storage services. Instead, EGI filed a total of 8 pages on the assessment of physical asset replacement alternatives as compared to 4 pages and an 86-page report discounting the potential for market-based supply side alternatives.

FRPO did not invest much time testing the evidence on the market-based supply side alternatives. Our experience informs us that the significant prior investment in a system of piping and compression on top of relatively rare geological formations would create a valuable asset that needs ongoing maintenance, renewal and replacement of components of that system to yield leveraged benefits. As a result, our focus was, IF

[12] EB-2020-0181 Asset Management Plan 2021-2025, Section 5.5.5.4 Strategy Outcomes, p. 196
[13] EB-2020-0181 Asset Management Plan 2021-2025, Section 5.5.4 Storage and Transmission Operations Condition and Strategy Overview, p. 190
[14] Exhibit I.CME.2, pg. 5

need is established, what is the most technically and economically effective approach to maintaining and potentially enhancing the value of the storage fields and hub.

EGI Has Not Met Its Burden of Proof to Demonstrate the Project is the Best Alternative

The merger of Enbridge Gas Distribution Inc. and Union Gas Limited not only brought together two distinct expansive systems of gas transmission and distribution, but also, two prolific networks of storage fields (Dawn and Corunna) that have been connected for decades. In our view, one of the biggest opportunities for the newly merged entity would be to find synergies by operating storage fields in an integrated fashion.

This proposed Project is the first major storage project brought to the Board which combines the capabilities of the previously separate operations. In fact, the Project proposed the establishment of a new, larger connection to use the capabilities of Dawn to replace capabilities of Corunna. Since the evidence focused on the Corunna Compressor Station (CCS), FRPO requested EGI to provide the study undertaken to evaluate the synergy and integration opportunities. EGI's response asserted that the company had not undertaken a study, but the sites were operated on an integrated basis[15]. Without an understanding of the integrated operation, our opportunity to ask informed questions was limited.

In parallel to the initial interrogatories, given the dearth of technical information on the evaluation of the physical asset alternatives, our request was that EGI file the study(ies), technical reports and summary model outputs that assessed the alternatives. While EGI provided model outputs (to be discussed later), the response stated: *"For facility alternatives, Enbridge Gas did not produce studies or technical reports. Rather, the Company relied upon its extensive experience in developing cost estimates and constructing compression and pipeline infrastructure.*[16]" Respectfully, it makes no sense that a comprehensive assessment of facility alternatives for an integrated system of storage pools, compressors and pipes, each with their own inherent capabilities and limitations, would be completed with no documentation of the alternatives considered, assumptions made and a demonstration that the chosen alternative was superior.

Through the course of the technical conference[17] and subsequent communication through the Board to the company[18], we tried to overcome what could have been the lack of precision in our request. EGI has asserted that the requested facility alternative study cannot be produced. In our respectful submission, EGI has not demonstrated that the proposed Project is the most technically and economically effective approach to the risk-informed, continuation of storage services.

[15] Exhibit I.FRPO.2
[16] Exhibit I.FRPO.24
[17] Transcripts_Enbridge Technical Conference_day 1_20220727 page 97, line 5 to page 98, line 15
[18] FRPO_TECH CONF_UNDERTAKING REQUEST_20220815 and FRPO_TECH CONF_REQUEST JT1.5-_20220818

Discovery Provided Some Insight to Assist the Board

Given that FRPO cannot provide its views on information that was not provided, we believe it may assist the Board to provide some observations from information we did receive.

- **A Risk-informed Sequenced Replacement May be Appropriate**

On the first page of the Application and multiple times throughout, EGI states its need/intent to remove/decommission "up to seven" compressors[19]. It is within the context of the phrase "up to", we read the evidence that discussed a growing concern about reliability, obsolescence, and safety. FRPO, along with other parties, was surprised to find out that, contrary to the Application, the plan was to replace all seven[20]. In the Technical Conference, EGI asserted that its intent was to remove all seven as part of the Project[21].

Given that evidence produced only 18 months prior to this Application, identified replacement of three[22], we wanted to understand the potential to sequence the replacement. In its prefiled evidence, EGI evaluated two new compressors would be needed to replace all seven compressors at issue. From our IR that requested model outputs, we could discern that there was potential for one variable drive compressor to replace most of the compressors. This approach could allow compressors to be removed strategically over time while harvesting parts of similar models to extend the life of the remaining compressors.

In advance of the Technical Conference, FRPO, with EGI's cooperation[23], produced a table that examined the potential for one appropriately sized compressor to replace multiple compressors[24]. Once again, the limitation on information of the integrated operations restricted our ability to test this approach to peak day design capability and even then, understanding their background design was a challenge[25].

What we were trying to test was the opportunity that one appropriately sized compressor could replace multiple compressors. Unable to see their facilities planning documentation of alternative assessment, we simply asked EGI to provide the flow capability from Corunna to Dawn with one 22,000 HP Spartan e90 compressor[26] replacing successive removals of legacy compressors numerically starting at K701. The proposed design condition stipulated by EGI was a peak day flow from Corunna to

[19] Exhibit A, Tab 2, Schedule 1, pg. 1
[20] Exhibit I.FRPO.11, Exhibit I.EP.1, Exhibit I.PP.1 &.2
[21] Transcripts_Enbridge Technical Conference_day 1_20220727 page 98, line 28 to page 101, line 6
[22] EB-2020-0181 Asset Management Plan 2021-2025, Section 5.5.5.4 Strategy Outcomes, p. 196
[23] Exhibit KT1.2
[24] Exhibit KT1.3
[25] Transcripts_Enbridge Technical Conference_day 1_20220727 page
[26] Exhibit C, Tab 1, Schedule pg. 19 EGI proposed 2 Spartan e90 electric motor drive ("EMD") compressors to replace all 7 legacy EGD compressors

Dawn of 2,733 TJ/day[27]. EGI confirmed that the existing scenario and the proposed Project delivered the exact same capacity of 2,733 TJ/day for the forecasted winter of 2022/23[28]. EGI confirmed that one electric Spartan e90 compressor could provide at least 2,733 TJ/day with compressors K701, 702, 703 and 705 removed.[29]

In our respectful submission, FRPO sees considerable opportunity in a plan to instal one initial electric compressor to allow EGI to remove the legacy compressors with the greatest risk while harvesting the parts to improve the reliability of the remaining compressor. If done strategically, this approach could also address some of the safety concerns by removing one compressor per building. While we cannot provide more specificity without further knowledge and insight, we fundamentally believe that this alternative ought to have had more analysis and evidence by EGI in light of the evolution of their concerns at this site. Time also provides the opportunity to evaluate any changes in the demands for storage in light of carbon-reducing initiatives.

- **Limits on Discovery Produce Misunderstanding & Potential Errors**

FRPO's experience in this proceeding has increased its belief that substantial projects like this project warrant a stronger evidentiary basis created by a greater onus on the applicant to provide more information upfront and throughout the process. As noted above, this was the first major project that proposed an important asset that evolved the link between the sites of the legacy storage operations of Enbridge Gas Distribution and Union Gas. However, it was not until the second day of the Technical Conference when we pleaded for a greater understanding of the integrated operations[30] where we were provided with an agreement to undertake a summary of how the two sites work together to meet conditions from the Dawn Hub[31]. The resulting undertaking provides a subset of the type of information that FRPO was seeking in its interrogatory request for all studies, technical reports and summary model outputs to test the assumptions made and the efficacy of the alternatives[32]. While the undertaking was helpful for our understanding, we would need to ask clarifying questions to ensure that our understanding was correct to be useful in informing the Board.

While the discovery process enhanced our understanding, FRPO was limited in its ability to assist the Board given the information provided and its timing. In fact, in preparing these submissions, we noted substantial discrepancies which we could not reconcile. FRPO gained considerable understanding in the technical conference by requesting pressures and flows for various scenarios on a peak design day eventually totalled in Exhibit KT1.3. The impetus of our inquiry in the technical conference was to compare scenarios to the current state on a peak design day of 2,733 TJ/day flow from

[27] Exhibit KT1.3 showed a sum total of flows from Corunna to Dawn of 2,733 TJ/day for both the existing condition and the new pipeline.
[28] Transcripts_Enbridge Technical Conference_day 1_20220727 page 70 lines 3-4
[29] Transcripts_Enbridge Technical Conference_day 1_20220727 page 81, lines 14-23
[30] Transcripts_Enbridge Technical Conference day 2_20220802, pages 47-59
[31] Exhibit JT2.8
[32] Exhibit I.FRPO.24

Corunna to Dawn. While there were many figures on the record to that point, in our understanding, this figure first appeared when we totalled the flows from Corunna to Dawn as provided by EGI in KT1.2. However, in our drafting exercise, we came upon the design deliverability from legacy Union and EGD that depicted EGD peak day design deliverability of 2,372 TJ/day[33]. To try to reconcile these numbers, we referred back to our final undertaking request, JT2.8 that presented 2,600 TJ/day on a peak day from storage. At this point, we cannot reconcile these numbers but strived throughout our submissions to use EGI verified numbers such as 2,733 TJ/day.

- **Discovery Reveals Operational Changes Not Evidenced Previously**

One of the insights gained in the discovery process was a substantial adjustment to storage inventory undertaken by Enbridge Gas Distribution (EGD) after the 2013/14, the "Polar Vortex" winter, which spiked gas prices for EGD customers. In the Board directed review of the circumstances, EGD acknowledged the level of risk in their current plan[34]. As a critic of EGD's approach[35], FRPO monitored EGD's gas supply evolution through evidence presented to the Board in the years to come. However, it was only through discovery in this proceeding did FRPO become aware of the constraints placed on EGD in-franchise storage.

Through discovery, FRPO came to understand that had EGD effectively increased the targeted inventory held in EGD in-franchise storage until February 28th from 18.5 PJ to 43.5 PJ[36]. The practical effect of this change would be to reduce availability of storage for seasonal load balancing for in-franchise customers by as much as 25% since the maximum EGD inventory was and is still set at 99.4 PJ. An extension of that effect is impact on ratepayers of this "operating" adjustment including the potential required purchase of additional market-based storage. In addition, as confirmed in this proceeding, the 43.5 PJ storage level supports all deliveries from Corunna to Dawn on a peak day including non-utility storage contracts. Given that the design day storage level for in-franchise customers is not a determinable issue in this proceeding, we will defer further submissions to a later proceeding to assist the Board at that juncture.

In summary, FRPO respectfully submits that EGI has not met its onus to demonstrate the proposed Project. Further, we submit that, if the Board denies the application, that EGI be directed to enhance its evidentiary basis on the examination of alternatives including the sequencing of existing compressor removal and the use of appropriately sized replacement compressors including those that use electric motor drive.

[33] Exhibit I.FRPO.5
[34] EB-2014-0289 EGDI_2014 NGMR Conference_Presentation_Session 2_20141124
[35] FPRO_SUB_NGMR_20141124
[36] Exhibit JT1.4

EGI SUBMISSIONS ON COST ALLOCATION SHOULD BE IGNORED

As described above, the merger of the two legacy utilities created an opportunity to manage Corunna and Dawn as an integrated storage facility. Throughout the evidence, EGI and other parties used the term "unregulated" storage or storage contracts. We respectfully submit that all of the storage is regulated but implication of this Project on the non-utility storage services is a more appropriate issue.

However, as parties attempted to understand the cost allocation implication of the project, EGI stated that cost allocation was not an issue in this proceeding[37]. With this restriction, we were surprised to see EGI arguing for 100% allocation of the costs to the utility[38]. In our respectful submission, this particular submission is inappropriate, and no weight should be given to it.

ALL OF WHICH IS RESPECTFULLY SUBMITTED ON BEHALF OF FRPO,

Digitally signed by R. Dwayne Quinn
DN: cn=R. Dwayne Quinn, o=DR QUINN & ASSOCIATES LTD., ou=PRINCIPAL, email=drquinn@rogers.com, c=CA
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Dwayne R. Quinn
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[37] Exhibit I.SEC.18 and Transcripts_Enbridge Technical Conference day 2_20220802, page 71, line 3 to page 72, line 11 as examples
[38] EGI AIC, page 28, para. 61