

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

November 9, 2020

**Re: EB-2020-0136 - Enbridge NPS 20 Cherry to Bathurst Leave to Construct
Pollution Probe Submission**

Dear Ms. Long:

In accordance with Procedural Order No. 3 dated October 27, 2020, please find attached Pollution Probe's submission for the above-noted proceeding.

Respectfully submitted on behalf of Pollution Probe.



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ONTARIO ENERGY BOARD

Enbridge NPS 20 Cherry to Bathurst Leave to Construct

POLLUTION PROBE SUBMISSION

November 9, 2020

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Background

Enbridge Gas Inc. (Enbridge) applied to the Ontario Energy Board (OEB or Board) on July 31, 2020, under sections 90 and 97 of the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, (Schedule B), for an order granting leave to construct approximately 4.5 kilometres of natural gas pipeline and ancillary facilities in the City of Toronto. The proposed pipeline will replace approximately 4.3 kilometres of Nominal Pipe Size (NPS) 20 inch High Pressure (HP) steel (ST) natural gas transmission pipeline along Lake Shore Boulevard between Cherry Street to Bathurst Street and approximately 230 metres of pipeline on Parliament Street. Enbridge Gas has also applied for approval of the form of the land-use agreement it will offer to landowners for the routing and construction of the project.

This following is the written submission from Pollution Probe in relation to this proceeding.

Context and Process

Pollution Probe works with consumers, communities, policy makers and related stakeholder organizations and is an active supporter of community energy planning that provides prudent cost-effective energy options to communities in Ontario, including the City of Toronto. Pollution Probe has supported natural gas projects when there is a clear need and particularly when they reduce consumer energy costs, greenhouse gas emissions and aligns with Provincial policy and local community energy and emissions planning.

This nominal pipe size (NPS) 20 high pressure (HP) steel (ST) transmission pipeline is the backbone of the Kipling Oshawa Loop (KOL) and this is not a typical Leave to Construct application. This project derives directly from aging transmission infrastructure and it is expected that the OEB will start to see many more of these projects as the natural gas transmission backbone was primarily built 50 to 100 years ago (in fact, several of replacement project have recently started to be submitted to the OEB¹). Enbridge has been monitoring the existing KOL pipeline as part of its integrity program (including in-line inspection in 2016 and 2018)². Analysis conducted by Enbridge in 2015 and 2016 via an asset health review (AHR) observed that vintage steel mains, defined as those mains installed in the 1970s and prior thereto, have demonstrated declining health compared to steel mains installed after the 1970s³.

This pipeline is particularly noteworthy because of its location in the densely populated downtown Toronto core. Pollution Probe agrees that the potential consequences of a failure are amplified in high consequence areas including characteristics such as wall-to-wall concrete, a densely populated downtown core with residential, commercial and critical customers, the Gardiner Expressway, utility congested road allowance, and close proximity to railway/public transportation⁴. Similarly, replacement of a 4.5 km section of pipeline will have a higher than typical impact due to the number of businesses, traffic, plus existing and planned infrastructure along this congested corridor. This is a major corridor in downtown Toronto and there will be significant cumulative effects due to this proposed project and other projects planned in this area.

It is typical to include an oral hearing component to large transmission Leave to Construct proceedings. Over the past 30 years, practically all large diameter transmission project proceedings included the ability to test witnesses and for all stakeholders (including Enbridge) to have the option to introduce witnesses. In this proceeding, Enbridge (and other parties) have not been able to put forward witnesses and test evidence in an oral

¹ Including EB-2020-0192 which is old than the KOL transmission line.

² Exhibit B, Schedule 1, Page 1

³ EB-2020-0136 Argument in Chief of Enbridge Gas November 2, 2020 Page 4, para. 11.

⁴ Exhibit B, Tab 1, Schedule 1, para. 3.

proceeding. This Project is a proposed large diameter transmission project with an estimated costs of \$133 million (actually less than \$133 as outlined later in this submission) and significant potential socio-economic impacts during construction and over the proposed life of the assets (well beyond 2050). The impacts and risks would be much lower for a smaller \$5 million plastic distribution Leave to Construct application and it is understandable why an oral component may be skipped in some of those smaller projects. Pollution Probe recommends that the OEB consider an oral component to this proceeding to bridge the gaps identified in this submission and enable fulsome testing of evidence via cross-examination.

Pollution Probe is fully aware of the COVID protocols that the OEB and other organizations have been enabling since March 2020 and in fact Pollution Probe and all of the stakeholders we deal with have made similar adjustments. The OEB has successfully used video conferencing to enable witnesses to be brought forward in other recent proceedings and the feedback has been excellent. Pollution Probe requests that the OEB use a similar approach to enable an oral component to testing of the evidence and any witnesses that Enbridge (or other parties) wish to bring forward in this proceeding. It is unusual to exclude that part of the process for a project like this. Until the recent Enbridge request for project withdrawal, this approach was also committed (including a local hearing component) for the similar Dawn-Parkway Leave to Construct transmission project (EB-2019-0159).

It is also timely that the OEB is undertaking a generic review of integrated resource options⁵ in Ontario which will help appropriately assess cost-effective options to avoid the very costly 'like for like' replacement of the existing transmission system. In the interim, decisions will need to be made based on the patch-work evidence, the utility Assets Plans, Distribution Integrity Management Program, municipal energy and emissions plans, planning policies and OEB policies, procedures and guideline. This submission attempts to lay relevant issues out in a logical manner to assist the OEB in determining the next step.

This application is focused on the 'Project' as defined by the application and not the most efficient portfolio approach which will be assessed in EB-2020-0091. Therefore, Pollution Probe has focused its comments below within the scope of this proceeding and avoiding recommendations that would be more generic in nature. Pollution Probe has identified several opportunities to reduce impacts related to the Project and reduce the costs to Ratepayers, environmental & socio-economic impacts and align with Provincial policy and OEB requirements.

⁵ Reference: EB-2020-0091.

Scope of the Proceeding

In its Argument-in-Chief, Enbridge reiterates it is requesting that the Board make the following Orders⁶:

- (i) an Order pursuant to section 90 of the OEB Act granting leave to construct the Project facilities; and
- (ii) an Order pursuant to section 97 of the OEB Act approving the proposed form of working area agreements.

Enbridge also confirmed that the 'Project' scope is the following: "The Project consists of the installation of approximately 4.5 km of NPS 20 HP ST natural gas pipeline from the intersection of Cherry Street and Lake Shore Boulevard where it will tie-in to an existing natural gas pipeline. From there it travels west along Lake Shore Boulevard (and parts of Harbour Street) to Remembrance Drive (west of Bathurst Street) where it will tie-in to an existing natural gas pipeline. The Project also requires the construction of a tie-in lateral (the North Tie-In Lateral) which commences at the intersection of Mill Street and Parliament Street. At that intersection the North Tie-in Lateral will tie-in to an existing natural gas pipeline. From there the North Tie-in Lateral travels approximately 260 m south along Parliament Street to Lake Shore Boulevard where it will tie-in to the facilities to be constructed along Lake Shore Boulevard"⁷.

Enbridge has not made any request to the OEB for other approvals, including decommissioning of the existing NPS 20 pipelines. The Environmental Report does not deal with impacts and mitigation needed for the decommissioning project⁸. Enbridge confirms that it does not require any OEB approvals for such activities. Enbridge specifically indicates that it is not seeking OEB approval for elements related to the decommissioning project as part of this application⁹. Abandonment costs are estimated to be approximately \$2 million (plus 30% contingency for a total of \$2.6 million)¹⁰. It is important to differentiate what is included in the Leave to Construct Project facilities and what costs are outside those requested approvals¹¹ since the evidence does not always differentiate between the two. The OEB's Leave to Construct decision could be considered tacit approval of Project capital for a future panel and it will be important to understand the scope of approval and costs impacts related to this proceeding should a decision be issued.

⁶ EB-2020-0136 Argument in Chief of Enbridge Gas

⁷ EB-2020-0136 Exhibit A, Tab Schedule 1 and confirmed in EB-2020-0136 Exhibit I.PP.4

⁸ EB-2020-0136 Exhibit I.PP.9

⁹ EB-2020-0136 Exhibit I.PP.1

¹⁰ EB-2020-0136 Exhibit I.ED.10

¹¹ EB-2020-0136 Exhibit I.PP.1

Project Options

Enbridge indicates that the options for this project are repair or replace. Enbridge has indicated that replace is its preferred option and has identified its preference for a 'like for like' diameter pipeline. Pollution Probe understands why this option would be attractive to Enbridge, but it is clear that a replacement scenario could include a smaller diameter pipeline to meet current demand and the declining natural gas requirements in the City of Toronto, reduce ratepayer costs, socio-economic impacts during construction and utility congestion in this busy downtown right-of-way. Enbridge suggests that a like-for-like replacement of the existing 20-inch pipeline is required, because a smaller diameter pipeline would not be sufficient in the event of system disruptions in the future¹². This is a hypothetical argument and there is no empirical evidence provided to support what system disruptions impacts would consist of or what over-sizing the OEB should consider. System disruptions can result in anything from little/no capacity impact to full pipeline shutdown and it is unclear what standards Enbridge is using to over-size capacity in the event of potential system disruption. If this hypothetical argument is accepted by the OEB, it could set a new precedent that any pipeline can be over-built in the future and Ratepayers would have to carry those costs. This is an issues that will need to be dealt with in the IRP generic hearing.

The City of Toronto is actually reducing carbon emissions by 80% by 2050¹³, including fuel switching away from natural gas which is the largest contributor to total emissions within the buildings sector, and the city overall¹⁴. Halving the use of natural gas within the City of Toronto by 2050¹⁵ means that each year of pipeline deferment reduces the natural gas demand and related size/cost of the required pipeline¹⁶. Enbridge has already agreed that NPS 20 is currently over-sized and has provided qualitative arguments to support the interest to replace like for like. If this was a brand new pipeline there would be no debate that greater analysis and justification is needed to support over-sizing of the project and the costs/impacts related. This project should be no different.

The Province of Ontario Environment Plan indicates a substantial reductions of natural gas use in Ontario. Pollution Probe will not reiterate the material outlined by Environmental Defence, but it is necessary to point out some inaccuracies in the interrogatory responses of Enbridge to ensure that public record is correct. Firstly, Enbridge suggests that Ontario's Environment Plan is only 'draft' and suggest it can't be

¹² EB-2020-0136 Argument in Chief of Enbridge Gas, para 37.

¹³ <https://www.toronto.ca/wp-content/uploads/2018/02/9490-TransformTO-Report-2-Attachment-B-Results-of-Modelling-GHG-Emissions-to-2050-Apr17-Revised-Compressed.pdf>

¹⁴ Ibid, page 26.

¹⁵ Ibid, page 44 (decrease from 44% natural gas use to 23% natural gas use is a 48% decrease)

¹⁶ Ibid, page 72, Figure 33.

used to make decisions. The Province of Ontario has in fact celebrated the anniversary of this plan and has taken tangible action in line with this plan. The Province also states “Our government has put forward smart solutions that have helped to contribute to our primary focus of promoting and supporting a healthy environment and a healthy economy and over the past year, we’ve made significant progress on key commitments in the plan”¹⁷. It is clearly not draft and as an important policy document is required to be considered in this proceeding¹⁸. It is also ironic, that Enbridge would suggest that initiatives reducing natural gas demand in Ontario and the City of Toronto should not be relied on by the OEB. However, Enbridge referenced these very same drivers or documents in recent OEB proceedings¹⁹ and the OEB relied on these drivers or documents in its Decision²⁰.

Enbridge DSM programs have also reduced natural gas usage across almost all rate classes and has also provided passive infrastructure investment savings by reducing demand in a broad-based context²¹. Enbridge indicates that DSM is anticipated to continue to be essential in continuing to reduce the natural gas usage and energy bills of Enbridge Gas customers for years to come while also continuing to passively mitigate infrastructure needs over time through reduction in annual demand²². Enbridge DSM is relatively small compared to other initiatives underway in the City of Toronto to reduce natural gas demand, but it will also have a compounding effect to reduce natural gas demand.

Enbridge Gas has agreed that the proposed pipeline is oversized to meet current and future capacity, but estimates that total Project costs would be reduced by only 5% to 10% if the Project could be completed using NPS 16 pipeline²³. Enbridge estimates that current demand would have to be decreased by around 18% for an NPS 16 pipeline²⁴. The decrease of natural gas use in Toronto are actually closer to 50% and this would justify a much smaller pipeline than NPS 16 and the cost saving would be far more significant than the \$13 million dollars (plus contingencies and overheads) suggested by Enbridge²⁵. Over-charging ratepayers by more than \$13 million dollars without sufficient justification is not appropriate. Pollution Probe also has concerns about stranded assets, but will reserve those concerns for the generic IRP Proceeding²⁶.

¹⁷ <https://www.ontario.ca/page/made-in-ontario-environment-plan>

¹⁸ The OEB Environmental Guidelines require consideration of all relevant policies.

¹⁹ EB-2019-0294 and EB-2020-0066

²⁰ In fact, specifically mentioning the MECP Environment Plan in the EB-2019-0294 Decision.

²¹ EB-2020-0091 Exhibit B, Page 4 of 46

²² EB-2020-0091 Exhibit B, Page 4 of 46

²³ EB-2020-0136 Argument in Chief of Enbridge Gas, para 37.

²⁴ EB-2020-0136 Argument in Chief of Enbridge Gas, para 38.

²⁵ Estimated at 10% of the total project costs.

²⁶ EB-2020-0091.

Enbridge Gas estimates that it would have to complete one integrity dig for every 26 m of the C2B segment over the next 40 years if the existing pipeline is not replaced. The term ‘estimates’ confirms uncertainty on what will be required on an annual basis and the related costs. The fact that there has been no immediate action as a result of the 2016 and 2018 in-line inspections confirm that integrity monitoring is a practical option until proper demand analysis and pipeline sizing can be done²⁷. Enbridge’s Integrity Program is fluid and it is not unusual to reassess annual spending and advance or delay integrity costs based on a risk ranked assessment. Typically, it would be expected that the Enbridge Asset Plan and related integrity policies would provide more specificity and prescriptive action if such a large and critical transmission pipeline was at risk of imminent failure in a congested area of downtown Toronto. Enbridge compared the repair scenario against a full like for like replacement, but did not include realistic scenarios where integrity digs could be used in the interim until a much smaller pipeline could be installed reducing overall costs and impacts. It is clear that the OEB has the time needed to request a more thorough assessment to support such a large decision.

The benefits of right-sizing this natural gas pipeline includes:

- Lower project and Ratepayer costs.
- Align supply with municipal planning assumptions (in this case the City of Toronto TransformTO Plan).
- Reduced environmental and socio-economic impacts, including economic impacts to businesses along proposed route.
- Reduced impact to municipal infrastructure (several of these issues have been raised by the City of Toronto in this proceeding)
- Decreases congestion in a critical downtown corridor
- Decreased risk of stranded assets
- Reduced safety and integrity risks, particularly if a pipeline rupture occurs due to damage or age.
- Aligns with the logical process of integrated system planning while more specific rules can be provided to natural gas distributors in Ontario through the generic hearing process (EB-2020-0091).

Project Costs and Feasibility

Total capital costs (inclusive of overheads) were estimated to be approximately \$133 million (the cost estimate actually includes the Project, plus other projects out of scope

²⁷ Exhibit B, Schedule 1, Page 1

for the Leave to Construct, including decommissioning of the existing NPS 20 pipeline²⁸) and Enbridge intends to commence construction of the Project in the second quarter of 2021. Enbridge internal documentation indicates a total project costs of \$176 million with an abandonment costs estimate of \$26.25 million²⁹. Pollution Probe invites Enbridge to explain that discrepancy in its Reply Argument and indicate where any incremental funds would come from. This project has not been justified on revenues from existing or future customers and assumes that costs related to a like for like replacement are taken as a fact. As outlined in this submission a like for like pipeline is not an automatic assumption, especially since natural gas demand is expected to decrease, rather than increase over the next 40 years (recovery period proposed for recovery of the asset costs from Ratepayers) or more. A more thorough analysis could provide options to decrease the diameter of the proposed pipeline (below NPS 16) and this would have a direct decrease to Ratepayer costs, project impacts and improvement to project feasibility.

This project does not currently have OEB capital funding approval and Enbridge has indicated that it intends to file that request in 2021. Should the OEB approve the Leave to Construct prior to the Capital Plan review and approval, it will likely be interpreted as pre-approval of this capital project and binding on that future panel. In Pollution Probe's view, it would be more appropriate to complete the capital funding request and then complete Leave to Construct approvals for this project if funding is available. Approving a project that is not funded is putting the cart before the horse. This would have the added benefit of providing time to advance required permits and filing of the material recommended by Pollution Probe at the end of this submission.

Appendix A to this submission includes contingency calculations based on information provided by Enbridge. The project contingency amount identified in the table is \$24.75 million which in itself is a large number. The table shows that this project contingency is above the average for recent Leave to Construct projects by more than \$4 million (referred to as excess contingency). Enbridge confirmed that the scope of this application and request for OEB Leave to Construct approval relates purely to the proposed NPS 20 pipeline and not to any of the other components including decommissioning of the existing NPS 20 pipelines. The contingency calculated in Enbridge's application is not the Project contingency, but is overestimated since it was calculated based on additional costs which are not part of the Project in this application. Enbridge labels the \$133 million as "Total Project Costs", but they actually do not relate to the 'Project' as defined in this application. The \$133 million is sum of the costs for the 'Project', plus a large amount attributed to other projects not part of this application. Should the OEB reference the \$133 million number and the related contingencies, it should be made clear that this does not represent the estimated costs related to this application. When Enbridge applies for OEB capital approvals in 2021 related to this Project, the number should be significantly below \$133 million and closer to \$100 million.

²⁸ Actual costs for the 'Project' requested in the Leave to Construct will be closer to \$100 million, but a more detailed assessment is required to determine the exact number)

²⁹ EB-2020-0136, Exhibit I.EP.2_Attachment 1 and 2

The Enbridge contingencies used for Leave to Construct projects brought before the OEB has a significant variation as outlined in Appendix A to this submission. Enbridge indicates that “the contingency applied to this project conforms to Enbridge Gas’s Guidelines for a project at this stage of scope development and risk profile. At the time the estimate was prepared the project maturity level was at the planning stage and drawings were preliminary”³⁰. It would be expected that by the time a project is brought to the OEB for approval, that the cost estimation would more accurate (i.e. lower contingency needed) and that there would be more consistency in contingency percentages.

There are issues related to the treatment of overheads and the timing of this project that will be included in other stakeholder submissions. For the sake of efficiency, Pollution Probe has avoided repeating those comments in this submission.

Environmental and Scio-Economic Impacts

Enbridge Gas retained Dillon to undertake a route evaluation and environmental and socio-economic impact study, and Enbridge prepared an Environmental Report meant to conform to the Board’s Environmental Guidelines for the Location, Construction and Operation of Hydrocarbon Pipelines and Facilities in Ontario, 7th Edition, 2016 (Environmental Guidelines).

This project is entirely within road allowance in the congested downtown core, which reduces many of the environmental impacts typically encountered with large transmission pipelines. However, environmental permitting and approvals are still required on this project. There is also a high impact on businesses, infrastructure and traffic along the proposed route during construction and the City of Toronto has identified a series of concurrent projects that will result in cumulative impacts from this project that were not identified in the Dillon report or Environmental Report or specifically mitigated. It is expected that Enbridge will need to coordinate with the City of Toronto and related permitting authorities to manage these conflicts. Enbridge could encounter delays or cost increases. Enbridge confirmed that there will be significant traffic and cycling lane impacts which will need to be mitigated when a traffic plan is developed³¹.

The proposed route also poses a high potential for encountering contaminated soils during construction. Enbridge Gas assumes most of the ground along the proposed route is contaminated. Costs related to ground contamination are included in Total Project Costs³². It is common to do boreholes in high potential areas to minimise these risks, since these risks could become large (for example the unregistered landfill Enbridge encountered in a previous project). It was also identified through

³⁰ EB-2020-0136 Exhibit I.PP.13

³¹ EB-2020-0136 Exhibit I.PP.11

³² Please see Exhibit I.EP.23.

interrogatories that the proposed project is in the vicinity of Station A, a former coal gas manufacturing facility operated by Consumers Gas³³. Contaminated water and soil related to migration of coal tar contaminants from this site will require special treatment and approvals (i.e. dewatering of high VOC groundwater into storm sewers poses a risk of explosion and water contamination).

Enbridge indicates that it is not mandated by the OEB to follow-up with OPCC and permitting agencies if it does not receive a response prior to filing for OEB Leave to Construct approval. Pollution Probe is concerned that the risk created by the lack of follow-up could result in serious issues not identified in this application. Some recent Leave to Construct projects have resulted in project changes, delays and significant permitting issues³⁴. Most recently, the first ever Section 101³⁵ application was submitted by Enbridge to the OEB due to permitting issues that were not sufficiently identified prior to the OEB Leave to Construct application and approval. Sending out a letter or email and assuming all will work out is not an effective approach. It is a concern that responses from most permitting agencies and members of the Ontario Pipeline Coordination Committee (OPCC) are still outstanding³⁶. If the Board approves the project without the confirmation from those agencies, Enbridge will still need to follow-up with those agencies to determine required mitigation and acquire appropriate approvals and permits. If permits are delayed or withheld it would impact the ability to meet the project schedule filed with the Board. It is unclear from the application whether Enbridge will be able to secure all the permits it requires to commence the project, including those from the City of Toronto and whether another Section 101 application from Enbridge would result.

Conclusion and Recommendations

Pollution Probe agrees that the existing transmission pipeline could be sustained through integrity monitoring and targeted repairs, particularly in the short term. However, there will be a point in time when portions of the pipeline may need to be replaced and it will be a question of what size of pipeline to replace it with. Enbridge has laid out a case for a 'like for like' replacement in 2021, but has failed to provide detailed analysis to justify why NPS 20 HP pipeline is needed to meet current and future gas demand. Based on the forecasted decreased natural gas consumption in the City of Toronto, the proposed pipeline is oversized and there is an opportunity to replace the existing pipeline with a smaller diameter pipeline to meet demand.

³³ EB-2020-0136 Exhibit I.EP.11

³⁴ Includes EB-2019-0172 where several change request were made and essential permits are still outstanding despite the OEB condition that all approvals were required.

³⁵ EB-2020-0160

³⁶ Exhibit I.STAFF.4

Pollution Probe recommends the following for this project.

- Defer a Leave to Construct decision until the OEB approves or denies capital approval needed to construct the Project. Enbridge has indicated that it intends to file for OEB capital approval in 2021 and based on the evidence there is no urgency for OEB approval since the Enbridge integrity monitoring program can continue to be leveraged in the interim.
- Require Enbridge to file detailed customer demand and scenario analysis on options, including decreased pipe size based on detailed current and future load analysis. The scenarios should include the City of Toronto TransformTO forecast of reduced natural gas demand by 48% by 2050. Option costs should include a detailed breakdown of estimated costs for comparison.
- Require Enbridge to file a detailed cost estimate that relates only to the Project as defined in the application and is not considered preliminary, including sufficient justification to support such the specific contingency. In the absence of a more accurate contingency number, decrease the Project contingency to 19%.
- If the OEB issues an approval, include the conditions of approval proposed by OEB Staff, plus that Enbridge must obtain all required permits prior to start of construction. (The Environmental Report completed by Dillon indicates that all permits and approvals should be acquired prior to starting construction and Enbridge indicated that it supports compliance with this condition³⁷).
- The justification and applicability for IRM treatment has not been addressed in this application and Enbridge has not requested OEB capital approval for the Project in this proceeding. It should be made clear that the recovery of any costs related to this Project are subject to review and approval by a future panel.

³⁷ EB-2020-0136 Exhibit I.PP.11

Appendix A

LTC Proceeding	Name	Contingency
EB-2019-0183	Owen Sound Reinforcement	14%
EB-2019-0188	North Bay Community Expansion	10%
EB-2019-0172	Windsor Pipeline Replacement	15%
EB-2019-0218	Sarnia Industrial Line Reinforcement	20%
EB-2019-0187	Saugeen First Nation Expansion	10%
EB-2019-0006	St. Laurent Pipeline Replacement	25%
EB-2018-0226	Georgian Sands Pipeline	20%
EB-2018-0188	Chatham-Kent Rural Project	15%
EB-2018-0306	Stratford Reinforcement	15%
EB-2018-0097	Bathurst Reinforcement	30%
EB-2018-0108	Don River 30" Pipeline	30%
EB-2018-0096	Liberty Village Project	25%
	Standard Deviation	-0.070769579
	Average	19%
Cherry to Bathurst LTC Project (data from EB-2020-0136 Exhibit D, Tab 1, Schedule 1)		
	Project Costs (excluding contingency)	\$108,293,840
	Contingency	\$24,754,051
	Total Project Costs	\$133,047,891
	Contingency Percentage	23%
	Excess Contingency (based on average)	\$4,087,977