DON RIVER NPS 30 REPLACEMENT PROJECT (EB-2018-0108)
POST CONSTRUCTION FINANCIAL REPORT ON COSTS AND VARIANCES
JULY 16, 2021

Introduction

Enbridge Gas Inc. (then Enbridge Gas Distribution Inc. "Enbridge") filed an application with the Ontario Energy Board (the "OEB") under sections 90 and 97 of the Ontario Energy Board Act, 1998 (OEB Act) on July 18, 2018 and an update on August 14, 2018 for an order granting a Leave to Construct to install a natural gas pipeline in the City of Toronto (the Don River NPS 30 Replacement Project, or the Project).

The project, a) Under section 90 of the OEB Act, encompassed installing 310.3m of Nominal Pipe Size ("NPS 30") Extra High Pressure ("XHP") steel natural gas pipeline in the City of Toronto.

The segment of pipeline that was replaced was located on an infrastructure bridge (the "Bridge") owned by Enbridge that spans the Don River. Enbridge had determined that the Bridge should be removed, and the segment of pipeline located on the Bridge should be abandoned and replaced as it posed a risk to the safe operation and reliability of the Don Valley Pipeline.

The Board assigned the file number EB-2018-0108 to the application and granted Leave to Construct on November 29, 2018.

Pipeline construction activities for Project commenced in May 2019 and was completed in May 2020. Hard surface restoration activities were completed by July 2020.

This Post Financial Construction Report summarizes the actual capital costs of the project and provides an explanation of significant variances from the original estimates.

A comparison of actual versus estimated project costs is shown in Table 1 below.

Table 1 – Total Project Costs

Don River NPS 30 Replacement Project

Item No	Item	Project Estimate ($)	Actual Cost ($)	Variance ($)
1.0	Material Costs			
1.1	Pipe	$441,490	$329,422	$112,069
1.2	Fittings	$268,617	$350,147	($81,530)
Sub-Total	**Total Material Costs**	**$710,107**	**$679,569**	**$30,539**
2.0	Labour Costs			
2.1	Labour	$15,614,109	$16,099,628	($508,590)
2.2	Inspection	$900,000	$1,136,711	($236,711)
2.3	Non-Destructive Testing	$82,500	$183,212	($100,712)
2.4	Bypass Support	$463,676	$29,224	$425,152
Sub-Total	**Total Labour Costs**	**$17,060,285**	**$17,481,147**	**($420,862)**
3.0	External & Regulatory Costs			
3.1	External & Regulatory Costs e.g. Environmental/Archeological Assessment, Environmental Inspector, Surveying for Drafting and Pre-Construction Mark-Ups, Insurance, external legal fees, OEB filing, etc.	$860,000	$1,506,394	($655,425)
Sub-Total	**Total External & Regulatory Costs**	**$860,000**	**$1,506,394**	**($655,425)**
4.0	Land			
4.1	Land Costs (e.g. easements, temporary working areas, title search, permits) Total Land Costs	$301,000	$3,316,836	($3,031,836)
Sub-Total	**Total Land**	**$301,000**	**$3,316,836**	**($3,031,836)**
5.0	Overhead Costs			
5.1	Engineering, Planning and Design	$544,100	$754,045	($209,945)
Sub-Total	**Total Overhead Costs**	**$544,100**	**$754,045**	**($209,945)**
6.0	Contingency Costs			
6.1	Project contingency (30% of project subtotal)	$5,842,647	-	-
Sub-Total	**Total Contingency Costs**	**$5,842,647**		
7.0	Total Estimated Project Cost			
7.1	**Total Project Cost**	**$25,318,141**	$23,706,759	$1,611,382

The cost variances in the specific categories are described below:

1.0 The final Material Costs were $679,569, approximately $30,539 less than expected at the time of filing. At the time of the filing, some material costs were estimated which contributed to the higher initial anticipated costs as compared to actual costs.

2.0 The final Labour Costs were $17,481,147 approximately $420,862 higher than the estimate originally provided mostly for the reasons outlined below.

2.1 Labour costs were slightly higher mostly due to the extension of the project from the projected in-service date of December 2019 to actual in-service date of April 2020. A portion of the contingency budget was used to offset the higher actual labour costs.

2.2 Inspection costs were slightly higher than estimated due to the extension of the project timing from the estimated in-service date of December 2019 to actual in-service date of April 2020.

2.3 Non-Destructive testing (NDT) costs were higher due to a field change. It was originally anticipated that an NDT crew would be contacted to complete testing as it was required, however, due to timing of actual construction it was more expedient to maintain the same NDT crew on-site to avoid construction delays resulting in higher than anticipated testing costs.

2.4 Bypass support costs came in under budget because project tie-ins were completed during the planned tie-in schedule. The original budget amount was unrealized and would only have been required if the tie-ins were not completed within the planned tie-in timeframe. Thus, labor costs related to building bypasses did not materialize.

3.0 The final External & Regulatory Costs was $1,506,394 approximately $655,425 higher than expected at the time of filing. Cost increases for this item was related to additional environmental protection measures required by third party regulatory agencies to obtain the necessary permits. Additionally, separate soil settlement monitoring was requested by Metrolinx and the TRCA that is more than what is typically required.

4.0 The final Land costs were $3,316,836 approximately $3,031,836 higher than originally estimated. The additional costs are attributed to the need for multiple agreements for temporary and permanent easements, including a tri-party agreement between the City of Toronto and the TRCA. Also, expropriation activities had to be undertaken for a portion of the pipeline route, further causing cost and schedule pressures.

5.0 The final Overhead costs were $754,045, approximately $209,945 higher than what was estimated due to additional work required to obtain permits and easements and the extension of the project from the projected in-service date of December 2019 to actual in-service date of April 2020.

6.0 The contingency amount that was forecast for this project was only partially used to cover realized risks and higher easement costs leaving approximately $1,611,382 unused.

Conclusion

The Don River NPS 30 Replacement Project was completed with a total project cost of $23,706,759, approximately $1,611,382 below the estimated cost. Overall, the variance between the final actual project costs and project estimates was reasonable and prudently incurred.

The primary reasons for the cost variances can be summarized as follows:

1. Difficulties and costs associated with obtaining easements.
2. Several construction risks did not realize, lowering the amount of contingency needed for these items.
3. Special permitting requirements led to an increase in environmental inspection costs.