

June 20, 2018

VIA COURIER, RESS and EMAIL

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto, ON
M4P 1E4

Dear Ms. Walli:

**Re: Upper Canada Transmission, Inc. (“UTC” or “NextBridge”)
Ontario Energy Board (“OEB” or “Board”) File EB-2017-0182/EB-2017-0194
New East-West Tie Line Project
Undertaking Responses of NextBridge**

Further to the undertaking responses filed by NextBridge on June 1, 2018, taken during the Technical Conference on May 7, 2018 in the above noted proceeding, enclosed please find responses to the following undertakings:

- Exhibit JT1.7
- Exhibit JT1.11
- Exhibit JT1.14

Yours truly,

(Original Signed)

Krista Hughes
Senior Legal Counsel
Enbridge Employee Services Canada Inc.

UNDERTAKING JT1.7

UNDERTAKING

TC TR 1, page 26

To provide a comparison of original milestones to actual, and associated costs.

RESPONSE

The left side of the attached table captures the original East West Tie Line Project development milestones approved by the Ontario Energy Board (“OEB”) in its September 26, 2013 Decision and Order Regarding Reporting by Designated Transmitter in EB-2011-0140 (“September 2013 Reporting Decision”), along with their completion status as of January 31, 2015, which is the approximate close of the original 18 month development period. Budgeted development costs for the original 18 month period are also provided by workstream.

On the right side of the attached table are the Extended Development Period milestones as approved by the OEB in its November 19, 2015 Decision and Order Regarding Application for Approval of Schedule and Costs related to the Development of the East-West Tie Transmission Line in EB-2015-0126, as amended (“November 2015 Schedule and Costs Decision”). The milestone status for the Extended Development Period milestones is also provided as at July 31, 2017, as well as actual development costs as at July 31, 2017 by workstream.

September 2013 Reporting Decision Approved Milestones	Status (1)	Budget (2)	November 2015 Schedule and Costs Decision Approved Milestones	Status (3)	Actuals (4)
Engineering Milestones		\$10,732,292	Engineering		\$10,347,322
1) Initiate engineering	Completed		A (formerly 1) Initiate engineering	Completed	
2) Sign contract for engineering	Completed		B (formerly 2) Sign contract for engineering	Completed	
3) Finalize design criteria for conductor and structure	Completed		C (formerly 3) Finalize design criteria for conductor and structure	Completed	
4) Complete conductor optimization study	Completed		D (formerly 4) Complete conductor optimization study	Completed	
5) File request for a System Impact Assessment (SIA) with the IESO	Completed		E (formerly 5) File request for a System Impact Assessment (SIA) with the IESO	Completed	
6) Status report on progress toward finalization of structure choice	Completed		F (formerly 6) Status report on progress toward finalization of structure choice	Completed	
7) Obtain senior management approval of the structure configuration proposal	Completed		G (formerly 7) Obtain senior management approval of the structure configuration proposal	Completed	
8) Complete aerial surveys	Completed		H (formerly 8) Complete aerial surveys	Completed	
9) Receive final SIA from the IESO	Completed		I Complete Preliminary Foundation Design	Completed	
			J Complete Engineering "Issued-for-bid" Design Package	Completed	
			K File request for updated System Impact Assessment (SIA) as required	No longer applicable as per EWT Line Project October 24, 2016 Report	
			L File request for updated Connection Impact Assessment (CIA) as required	No longer applicable as per EWT Line Project January 23, 2017 Report	
			M Receive final SIA from the IESO	Completed	
			N Receive final CIA from HONI	Completed	

September 2013 Reporting Decision Approved Milestones	Status (1)	Budget (2)	November 2015 Schedule and Costs Decision Approved Milestones	Status (3)	Actuals (4)
Route Selection, Land/ROW Acquisition and Community/Municipal Consultation Milestones		1,991,000	Route Selection, Land/ROW Acquisition and Community/Municipal Consultation		7,387,547
10 Prepare list of landowners along the ROW	Completed		Prepare list of landowners along the ROW	Completed	
11 Complete design of Landowner, Community and Municipal Consultation Plan	Completed		Complete design of Landowner, Community and Municipal Consultation Plan	Completed	
12 Commence negotiations or discussions with all landowners and permitting agencies	Completed		Commence negotiations or discussions with all landowners and permitting agencies	Completed	
13 Finalize proposed route and obtain senior management approval	Completed		Finalize proposed route and obtain senior management approval	Completed	
			R (formerly 13) Confirmation of authorization to study in Pukaskwa National Park	Completed	
			S Update Landowner, Community and Municipal Consultation Plan	Completed	
			T Issue RFP for Timber Valuation	Completed	
			U Establish Community Advisory Board(s) as required	Completed	
			V Initiate land optioning program	Exclusively Park Study related and no longer applicable	
			W Substantial completion of distribution of option agreements	Completed	
			X Finalize preferred route and obtain senior management approval (update to Milestone R)	Completed	
			Y Substantial completion of signing of option agreements	Completed	
			Z Crown Land Disposition Application filed	Delayed	
			AA Notify landowners of LTC application filing	Delayed	
			BB	Completed	

September 2013 Reporting Decision Approved Milestones	Status (1)	Budget (2)	November 2015 Schedule and Costs Decision Approved Milestones	Status (3)	Actuals (4)
Leave to Construct Milestones	Delayed	985,000	Regulatory	Completed	1,873,499
			IESO 2015 Needs Assessment update	No longer applicable per EWT Line Project January 23, 2017 Report	
			IESO 2016 Needs Assessment update	No longer applicable per EWT Line Project January 23, 2017 Report	
			IESO Confirmation of Need	No longer applicable per EWT Line Project January 23, 2017 Report	
27 Submit Leave to Construct (LTC) application			Submit LTC application	Completed	
Project Management		1,300,000	Project Management		4,966,784
Contingency		1,529,708	Contingency		0
TOTAL		\$22,398,001			\$35,731,616

Footnotes:
 (1) - Status of the milestones at January 31, 2015, , which is approximately the original end date for the 18-month development period.
 (2) - Budget development costs at designation incurred by workstream at September 2013.
 (3) - Status of the milestones at July 31, 2017, which is date that the leave to construct application was filed.
 (4) - Actual development costs incurred at July 31, 2017, which is date that the leave to construct application was filed.

UNDERTAKING JT1.11

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TC TR 1, page 37

To provide more detail for Staff IR 23 part d.

RESPONSE

Upon reading the transcript, NextBridge has determined that the description of the undertaking JT1.11 does not reflect the intent of what was being requested. Based upon the discussion between Board counsel and NextBridge's witnesses at pages 33 to 37 of the transcript, NextBridge believes that the undertaking related to assessing the amount of detail contained in NextBridge's monthly and quarterly development phase internal reporting. If the degree of detail contained in the internal reports differed significantly from what NextBridge provides in its quarterly reports to the OEB, Board staff requested that the reports be provided.

NextBridge confirms that the degree of detail is consistent between NextBridge's periodic internal reporting and that included in the quarterly reports to the OEB.

To the extent that it is helpful, NextBridge provides the below further detail related to construction phase anticipated cost management strategies.

In regards to cost management strategy during the construction Phase, NextBridge manages scope, schedule, and costs as inter-related project disciplines. In other words, a change in any one of these disciplines will likely have an impact on one or both of the other disciplines depending on the magnitude of the change.

The cost management processes at NextBridge are currently transitioning from a Development phase to the Construction project phase as the costs and the rate of spend increases as the project nears commencement of construction. As a part of this transition, two Project Controls analysts will be assigned (one for cost and one for schedule) to provide contract administration services over the Construction contract prior to construction commencing and stay on until the Contractor has achieved final completion and final project construction accounting closed.

In addition, these analysts will also coordinate with the Project Director's office and the other team leads on a regular basis in support of monthly construction phase reporting to NextBridge's Board of Directors.

These monthly construction phase reports are a summary (1 to 2 pages) that cover key topics such as: scope, resource planning, costs, schedule, land access, permits, safety, etc. The format of these reports is subject to change although NextBridge expects the content to remain similar. The format is designed to not only capture a brief narrative of an aspect of the project, but indicates its current status and forecasted trends using a traffic light concept (green, yellow, red). Costs are reported at the total project level and the schedule in terms of the in-service date.

In addition to the monthly construction phase reporting, the NextBridge Engineering and Construction Management team, along with the cost and schedule Project Controls analysts, will manage the engineering and construction scope on a daily basis during construction using a Plan of the Day ("PoD"), inspections, and verifications of work in the field and regular comparison of the progress against the baseline plan. This daily effort to manage scope avoids scope creep and the Construction Management team looks for ways to further optimize engineering and related construction costs. This comparison of progress (actual vs. plan) is usually done through a number of commodity charts where each chart represents small areas of work, type of activity, deliveries of material, installation, etc. There are several other detailed project control requirements spelled out in the Contractor's agreement (See Exhibit C-2, provided in response to Board Staff Interrogatory #7, found at Exhibit I.B.NextBridge.STAFF.7), but, in practice, only the meaningful requirements that best fit a specific project are deployed at the discretion of the Construction Management team to best help them manage scope, monitor progress, and forecast near and long term cost and schedule performance against the project plan. Any remaining work by the other team leads will be incorporated into the scope, cost and schedule management in real time, as needed.

Given the form of construction contract, and direct control over the engineering design, NextBridge is in a position to best manage the scope, such that it can maintain cost control and schedule. This inter-relationship of the three disciplines can have other effects, for example, discovery of a reduced scope for anticipated area of concern that is not found to be as challenging as expected, and, therefore, a less costly and/or time consuming alternative can be deployed. The inverse is also true.

UNDERTAKING JT1.14

UNDERTAKING

TC TR 1, page 58

(1) To update the table on page 1 of the updated evidence, original versus incremental; (2) to show percentages of total costs; (3) to do the same for the non-engineering construction cost tables.

RESPONSE

Upon reviewing the transcript related to the undertaking from the Technical Conference, NextBridge understands the undertaking as requesting the following: (1) to identify within the descriptions provided related to the engineering and construction costs categories at pages 7 through 10 of 11 in NextBridge's March 14, 2018 Updated Evidence ("Updated Evidence") what represented new activities at the Leave to Construct ("LTC") application as compared to that originally envisioned at designation; (2) in relation to the new construction phase activities identified, present the corresponding cost related to those new activities as a percentage of total construction cost; and (3) conduct the same exercise for the non-engineering and construction cost table at pages 2 through 6 of 11 of the Updated Evidence.

Generally, the descriptions are consistent between the activities anticipated at the time of designation and at the time of LTC for the construction phase, although the specifications, means and methods, quantities, and unit costs are often different, resulting in different costs. To give an example from the engineering and construction discipline, structures were estimated more simply in a few types at designation (guyed tangent, self-supporting/turning, dead-ends), then after developing and testing a family of structures (10 types) during the Development Phase they were then applied to specific locations along the route, resulting in different specifications, quantities and unit costs, and captured in the estimate for the LTC application. In this way, while costs related to an activity may have changed between the designation application and LTC application, the type of activities contained within the individual disciplines and/or categories remain largely unchanged.

A limited number of new activities were identified for completion in the construction phase which were not initially envisioned at designation. Those activities, which arose in relation to specific non-engineering and construction disciplines, are presented at Attachment 1 to this response, along with the cost of those activities as a percentage of total construction cost.

Attachment 1 shows that there are limited increased construction costs arising from activities

not contemplated at designation. As such, Attachment 1 is of limited assistance in explaining the causes of increased construction costs. To assist in understanding how the increases in costs contribute towards overall increased construction costs, Attachment 2 to this response provides costs at designation and LTC application, and the relative significance of those costs in relation to the overall construction cost increase. The majority, approximately 79%, of the increase in construction costs relate to engineering and construction activities. Factors influencing cost changes within each of the listed cost categories include, but are not limited to, the following:

- Extension of the in-service date to 2020;
- Increase in route length to go around rather than through Pukaskwa National Park;
- Fluctuations in currency exchange rates;
- Construction access plan refinement;
- Increased need for the use of self-supported structures;
- Increased costs to foundations and grounding due to subsurface conditions;
- Project refinements arising from First Nations and Métis and stakeholder engagement, including moving the line north of Loon Lake, and west of Ouimet Canyon Provincial Park;
- Landowner incentive payment adjustments;
- Enhanced design requirements at crossings to adhere to Hydro One requirements; and
- Physical design enhancements to increase strength parameters to enable ability to withstand a 1 in 100 year weather event.

Further explanation related to the drivers behind project construction cost increases between designation and LTC application are available at Exhibit B, Tab 9, Schedule 1 and NextBridge's response to Board Interrogatory #24, found at Exhibit I.B.NextBridge.STAFF.24.

	Detailed Description of Construction Costs per NextBridge Updated Evidence	New activity not identified at designation as part of construction phase activity	Percentage of total construction cost
Environmental	<p>This cost category includes the Environmental Assessment ("EA") (final EA comment and response period, field surveys associated with the EA, drafting and submitting an Amended EA, meetings with Regulators and stakeholders regarding the final and amended EA comments to help their reviews, and the amended EA comment and response period), Permit/approval acquisition, including from but not limited to the following Regulators: Department of Fisheries and Oceans; Transport Canada; Environment and Climate Change Canada; Indigenous and Northern Affairs Canada; Ministry of Natural Resources and Forestry; Ministry of Tourism, Culture and Sport; Infrastructure Ontario; Ministry of Environment and Climate Change; and Lakehead Region Conservation Authority (preliminary consultation, field surveys and assessments, drafting and submitting applications, further consultation), Construction Environmental Protection and Compensation Plan and Alignment Sheets (developing them as part of the EA and updating them prior to construction), Environmental training for field personnel for construction, Breeding Bird nest sweeps and Amphibian salvage prior to vegetation clearing, Fish salvage prior to in water works for water course crossings, and Environmental inspection during construction.</p> <p>The major services for external environmental consultants have been competitively sourced and the hourly rates of these services are consistent with NextBridge partner organization experience and expectations for these types of services, especially given the size, complexity, limited access and difficult terrain of this project.</p>	<p>1) Infrastructure Ontario class environmental assessment; 2) Cultural heritage assessment; and 3) Wildlife field surveys to inform permit applications.</p>	0.10%
Land Rights	<p>This cost category includes activities to secure and maintain the necessary land rights for the Project. Such costs include completion of property owner and Crown interest holder acquisition; permitting activities including 3rd party crossing notification, negotiation and execution of agreements, submission of <i>Public Lands Act</i> applications, and other Provincial and Federal approvals; Land Title and legal document production and review, Project line list maintenance and updates, GIS, mapping and data support; appraisals, legal survey for plan registration; Expropriation support; in-field landowner related construction and post-construction site remediation activity coordination, and damage settlement; land compensation for requisite land rights including easement and incentive payments, Crown land payments, construction damage payments, and input towards and participation in the leave to construct process and Amended EA review process.</p> <p>The major services for external land consultant have been competitively sourced and the hourly rates of these services are consistent with NextBridge partner organization experience and expectations for these types of services.</p>	<p>1) Incentive payments; and 2) Land surveys.</p>	0.47%
Other Consultation	<p>NextBridge has targeted larger engagement activities to coincide with major project milestones. Two rounds of open houses are planned, one at the commencement of construction and one at the conclusion of construction. Given that open houses provide the most transparent and open opportunity for stakeholders to engage with project staff, NextBridge considers that they are important for the success of the project and to satisfy stakeholder expectations. The open house scheduled for the commencement of construction will provide information on what people can expect in their community as workers mobilize and construction activity begins. This contains an important safety element as well. While effective, not everybody will or can attend an open house, so NextBridge is also proposing a Construction Awareness Campaign to coincide with construction commencement. The campaign will consist of advertisements in local newspapers letting readers know what's happening, what they can do to stay safe in and around construction activity, and who to contact should they have concerns or perceive safety violations. A final round of open houses will take place at the end of construction to inform of operational activities and remediation work that may take place after the project is in service.</p> <p>Also, NextBridge intends to expand Community Investment activity in the project area. Outreach with communities will identify key priorities for the communities in 2018 and 2019, and budgeted Community Investment money will be distributed along the ROW to help address those priorities.</p> <p>In conjunction with open houses and attendance at Community Investment events, NextBridge will meet with municipal and other stakeholders in the communities to provide additional project and construction updates. These meetings will primarily be tied to activities that require attendance in the communities to reduce travel costs, however, additional meetings with municipal stakeholders may be scheduled should they be needed.</p> <p>Engagement that is required by regulatory processes, including notifications and responding to inquiries and comments on regulatory filings, will continue. Other inexpensive but effective methods of stakeholder and municipal outreach will also continue, including project update letters, newsletters and regular updating of the project web site for access to timely information and project documentation.</p>	<p>1) Chamber/community events; and 2) Construction awareness program.</p>	0.02%

	Detailed Description of Construction Costs per NextBridge Updated Evidence	New activity not identified at designation as part of construction phase activity	Percentage of total construction cost
Regulatory	<p>This cost category addresses predicted costs related to regulatory activities anticipated to be required in advance of the EWT Line Project being able to enter into service. A proceeding related to NextBridge's Leave to Construct ("LTC") application is currently underway and, if NextBridge's proposal is approved by the Ontario Energy Board, will result in authorization for NextBridge to construct the EWT Line Project in July 2018. Additional anticipated regulatory activity for the period includes preparation of an application for rates for the EWT Line Project in 2019, with a hearing expected mid-2020 to achieve December 2020 in-service. Should land acquisition negotiations not be 100% successful, mediation and/or expropriation proceedings are anticipated to be required, as well as post-expropriation compensation proceedings should landowners disagree with proposed compensation amounts.</p> <p>External counsel services will be engaged to provide legal advice and support in relation to these matters. Limited external consultant services are also expected to be incurred in support of the rate application. Hearing costs and costs related to intervenor participation in each of the LTC, rate application and any mediation and/or expropriation and compensation proceedings are also included in this category.</p> <p>Ongoing regulatory support activities and limited expenses related to project development, environmental assessment processes and construction will also continue in this period.</p>	<p>1) Regulatory support for mediation and/or expropriation proceedings, as well as post-expropriation compensation proceedings, should land acquisition negotiations not be 100% successful; and</p> <p>2) Section 98(1.1) early access application.</p>	0.18%
Contingency – Non-E&C	<p>Estimating project costs involves risk and assumptions. In recognition of these risks, NextBridge examined the current project definition and calculated the contingency based on the non-Engineering & Construction tasks.</p>	<p>Non-E&C contingency was assessed and included as part of the leave to construct application construction budget.</p>	0.12%
Site Remediation - Non-E&C	<p>It is assumed there will be 2 years of post-construction requirements based on conditions of EA and permit approvals for site reclamation work. This cost includes environmental inspectors ("EIs") required to monitor the entire length of the right of way ("ROW"), including temporary work spaces, access roads, laydown and storage yards, construction camps, etc. The EIs will evaluate reclamation activities, watercourse crossings, surface water at permanent watercourse crossings and roadside drainage structures for function and condition and streamflow rates. Internal labour costs are included for two years to manage the environmental inspectors, obtain any licences/approvals required in relation to follow-up work and report on post construction monitoring and succession to the regulators as part of the Environmental Assessment and permit conditions. This category also includes budgeted costs to contribute to making the project neutral to the environment by mitigating footprint impacts.</p>	<p>1) Environmental inspection and coordination based on conditions of EA and permit approvals; and</p> <p>2) Ongoing licencing and reporting based on conditions of EA and permit approvals.</p>	0.22%

	Construction Cost at Designation (in 000s)	Construction Cost at LTC Application (in 000s)		Difference as a % of total change in construction cost (1)
E&C				
Engineering	13,236	19,342		1.8%
Materials & Equipment	52,169	89,408		10.9%
Site Clearing, Access	52,293	107,463		16.2%
Construction	180,235	356,548		51.8%
Site remediation	10,308	9,590		-0.2%
Contingency - E&C	35,709	48,480		3.8%
Escalation	19,149	0	(2)	-5.6%
Total E&C	363,099	630,831		78.7%
Non-E&C				
Environmental	3,221	13,031		2.9%
Land Rights	17,135	23,831		2.0%
First Nation and Métis Participation	0	5,500		1.6%
ALGP program - Legal Fees	0	1,500		0.4%
First Nation and Métis Consultation	5,526	13,211		2.3%
Other Consultation	841	2,530		0.5%
Regulatory	3,642	5,405		0.5%
Project Management	3,197	4,901		0.5%
Contingency - non E&C	0	919		0.3%
Site remediation - non E&C	0	4,309		1.3%
Interest During Construction	0	31,003		9.1%
Total non-E&C	33,562	106,140		21.3%
Total Construction Cost	\$396,661	\$736,971		100.0%

(1) Change in construction cost amounts to \$340,310 (736,971 - 396,661).

(2) In relation to the E&C costs shown in the LTC Application column, escalation was included in the other E&C categories as appropriate and not broken out separately