

UPPER CANADA TRANSMISSION, INC. (d/b/a NextBridge Infrastructure)

East-West Tie Line Quarterly Construction Progress Report

Reporting Period: July 1, 2019 to September 30, 2019

Date Submitted¹: November 8, 2019

- In its Decision and Order dated August 7, 2013 (Designation Decision), the Ontario Energy Board (OEB or Board) named Upper Canada Transmission, Inc. (UCT), doing business as NextBridge Infrastructure (NextBridge), as the designated transmitter for the development of the East-West Tie transmission line (EWT Project or Project).
- On July 31, 2017, NextBridge submitted an application for leave to construct (LTC) the EWT Project, pursuant to section 92 of the Ontario Energy Board Act (OEB Act). On February 11, 2019, the OEB issued a Decision and Order approving the LTC application and amending the conditions of UCT's Electricity Transmission Licence to authorize it to proceed to the construction, expansion or reinforcement of the transmission system for the EWT Project, pursuant to a directive to the OEB issued by the Minister of Energy, Northern Development and Mines and approved by Order in Council 52/2019 (OIC), dated January 30, 2019.
- On February 11, 2019, the OEB amended NextBridge's Electricity Transmission Licence to include conditions requiring NextBridge to report to the IESO on the progress, timeliness and cost-effectiveness of the EWT Project and provide such information that the OEB may from time to time require.
- On July 29, 2019, the OEB issued a letter outlining NextBridge's reporting requirements pursuant to sections 14.1 and 13.3 of its Electricity Transmission Licence.
- In accordance with the OEB's letter dated July 29, 2019, NextBridge will report quarterly on the 15th business day of each January, April, July, and October, with the exception of the first quarterly report, which was submitted on August 30, 2019. NextBridge will continue reporting until the EWT Project is in-service and land restoration activities have been completed.

¹ NextBridge was granted an extension to file its quarterly report on November 8, 2019 by the OEB in a letter dated October 17, 2019.



This report is organized as follows:

1	Summary of the EWT Project Progress to September 30, 2019	 A detailed summary of the status of the EWT Project, including work completed during the reporting period, overall progress, cost and construction schedule updates, and emerging risks. Where applicable, impacts from changes to Hydro One Network Inc.'s (HONI's) station work will be noted. This section includes: Table of Key Project Statuses; Table of Activities in the Work Fronts (WFs) for the Reporting Period; and Summary of Activities within the Reporting Period.
2	Construction Schedule Update	 Construction milestones for the Project were identified in NextBridge's responses to Procedural Order #3, filed May 3, 2018 and updated September 24, 2018. This section provides an overview of the permitting and approval/authorization requirements as they relate to the Construction Schedule and includes: Project Map Table Milestone Updates; and Permit and Approval/Authorization Requirements by WF. Where applicable, impacts from changes to HONI's station work will be noted.
3	Construction Cost Update	 Period-specific cost summaries providing details for each cost category in NextBridge's Project cost budget, including: Actual Spent; Percentage of budgeted costs spent to date; Updated forecast; and Material forecast variance (if applicable). This section also includes a Project Cost Update Summary and associated rationale for forecast variance and associated mitigating measures for negative forecast variances.
4	Risk Management	 A summary of risks that have occurred or could potentially occur during construction, including a discussion of potential impacts on schedule, cost or scope, and potential options for mitigating or eliminating the risk. This section includes: Risk Management Issues, Potential Impacts, and Mitigation Measures Table.



		In a letter dated October 10, 2019 the OEB requested information pertaining to ongoing items as well as Report-specific matters.				
5	OEB Requests	• Ongoing items have been addressed throughout this Report.				
		 Report-specific matters can be found in the attached appendix. 				



1. Summary of the EWT Project Progress During Reporting Period

A. <u>Table of Key Project Statuses</u>

Key Status	Summary		
Stage of Construction	 Construction activities have commenced Transmission line right of way (ROW) clearing commenced in September on WF 1 in and is expected to continue through WFs 7, 2, 6 and 8, respectively. Additional information on this topic can be found in Section 1. B. below. 		
Costs	 NextBridge undertook a re-budgeting effort upon the OEB issuing a Decision and Order approving the LTC Application Construction costs for the EWT Project are forecasted to be on budget as compared to the LTC application. Additional information on this topic can be found in Section 3. below. 		
Schedule	 Permit and access requests are on track but potential approval delays could present schedule risks NextBridge is making continuous efforts with the applicable parties and governmental agencies, including Ministry of the Environment, Conservation, and Parks (MECP), Ministry of Natural Resources and Forestry (MNRF), Ministry of Energy, Northern Development and Mines (MENDM), Ministry of Transportation, and Infrastructure Ontario (MTO), Fisheries and Oceans Canada (DFO), Canada Wildlife Service (CWS), NAV Canada, Transport Canada, and others, in order to maintain the current schedule. Additional information on this topic can be found throughout this Report. 		
Emerging Risk	 Lead-up to Federal Government Elections and impacts of potential changes in Ministerial appointments The dissolution of the 42nd Canadian Parliament in September 2019 marked the commencement of the upcoming general Federal Election on October 21, 2019. During the lead-up to the Federal election, decisions on permits and approvals from Federal agencies temporarily halt. NextBridge is in the process of seeking a number of permits from various Federal agencies, such as NAV Canada, Transport Canada, Indigenous Affairs Canada, and others. 		



Key Status	Summary
	• Upon the conclusion of the general Federal Election, it is possible that Members of Parliament change, which could lead to Ministerial changes.
	• These conditions place uncertainty in the timing of post-election decisions and approvals, which could impact construction execution plans.
	• The Project team is working on mitigating the potential realization of this risk by continuing engagement with the relevant permitting agencies to ensure timely approval of the required permit post-election and evaluating construction execution plans in impacted areas.
Indigenous Activities	Engagement continuing
Activities	 NextBridge continues to engage with the 18 Indigenous communities with an interest in the Project.
	• Engagement highlights include robust consultations on permitting including notifications, permitting workshops and the provision of capacity funding for communities to retain third party experts if required.
	• Section 28.2 Permit negotiations are continuing with the two communities in which the Project crosses First Nations lands.
	 NextBridge representatives organized Indigenous Facilitator training and has launched the Indigenous Facilitator Program which will support representatives from seven communities to be present on-site during construction.
	• Capacity funding agreements for the construction phase of the Project have been offered to all 18 Indigenous communities and progress has been made on finalizing several agreements.
	• Additional information on this topic can be found in Section 1. C. below.
HONI Coordination	Coordination and engagement continuing
	NextBridge continues to engage with HONI on multiple fronts.
	 Positive progress has been made in relation to longitudinal (land) access and transmission line crossing agreements.
	• Additional information on this topic can be found in Section 1. C. below.



B. Table of Activities In Work Fronts² for the Reporting Period

	Environmental Permit Submissions	Land- ROW ³	Land- Access⁴	Clearing Progress	Construction
Work Front 1	 Detailed Project Plan (DPP) package submitted. All related permit applications submitted. 	97%	92%	7%	 Access drawings approved by HONI. 48% flagging completed. 7% clearing completed. 6% road construction completed. 20% bridge installations completed.
Work Front 7	 DPP package re- submitted⁵. All related permit applications submitted. 	63%	95%	-	 Access drawings approved by HONI.
Work Front 2	 DPP Package submitted. Related application permit submissions are in preparation. 	69%	94%	-	 Access drawings approved by HONI.
Work Front 6	 DPP Package submitted. Related application permit submissions 	88%	37%	-	

² This is the currently proposed order of strategic WF execution and is subject to change.

³ Percentage of linear distance of route acquired in kilometers. Unencumbered Provincial Crown Land (Unpatented Land, Conservation Reserves, Parks) are assumed secured, but are still subject to receiving Provincial Government approvals.

⁴ Percentage of parcels with construction access requirements acquired. Construction access requirements on unencumbered Provincial Crown Land (Unpatented Land, Conservation Reserves, Parks) are subject to receiving Provincial Government approvals.

⁵ Comments were received from the MNRF in regards to the submission of the DPP for WF 7 and the DPP package was re-submitted based on this feedback.



	Environmental Permit Submissions	Land- ROW ³	Land- Access⁴	Clearing Progress	Construction
	are in preparation.				
Work Front 8	 DPP Package submitted. Related application permit submissions are in preparation. 	99.8%	32%	-	 Access drawings approved by HONI.
Work Front 3	 DPP Package submitted. Related application permit submissions are in preparation. 	91%	89%	-	• Nipigon camp site preliminary preparation activities commenced.
Work Front 9	 DPP Package in preparation and expected to be submitted in next reporting period. Related application permit submissions are in preparation. 	100%	69%	_	
Work Front 10	 DPP Package in preparation and expected to be submitted in next reporting period. Related application permit submissions are in preparation. 	66%	14%	_	
Work Front 4	 DPP Package in preparation and expected to be submitted in next reporting period. Related application permit submissions 	100%	50%	-	



	Environmental Permit Submissions	Land- ROW ³	Land- Access⁴	Clearing Progress	Construction
	are in preparation.				
Work Front 5	 DPP Package in preparation and expected to be submitted in next reporting period. Related application permit submissions are in preparation. 	93%	81%	_	
Work Front 11	 DPP Package in preparation and expected to be submitted in next reporting period. Related application permit submissions are in preparation. 	38%	66%	-	



C. Summary of Activities Within Reporting Period

Environment

- Species at Risk (SAR)
 - Continued positive discussions with MECP, CWS and DFO.
 - Received MECP letter of approval for all non-fish SAR except bat hibernacula and caribou in September 2019.
 - Anticipating MECP permit for bat hibernacula and caribou by December 1, 2019, based on recent discussions.
 - Anticipating DFO letter of approval for fish between October and December 2019 based on recent discussions.
 - Anticipating CWS record of consultation between October and December 2019 based on recent discussions.
 - Strategic WF permitting/execution approach allows the project to maximize working outside of the most possible species' restricted activity periods to minimize potential environmental impacts and disruption to Project schedule.
- DPPs
 - DPPs for WFs 1, 2, 3, 6, 7 and 8 were submitted during this reporting period.
 - Feedback from the MNRF was incorporated into the re-submission of the DPP package for WF 7.
- WF Packages
 - Submitted associated WF Packages for multiple construction WFs and Provincial Park/Conservation Reserves that provide the pre-construction, construction and operation activities to be undertaken for the Project.
 - Package submissions for WFs 1 and 7 occurred in August and September 2019, and revised packages to address agency comments were resubmitted in late September.
 - Permit application approvals received allowed limited ROW clearing work to commence in September 2019.
 - Continued productive discussions with;
 - MECP on Provincial Parks and Conservation Reserves management plan amendments; and



- MNRF on work and land use permits, etc.
- Permitting Requirements
 - Continued consultation with MECP, MNRF, DFO, CWS and other agencies regarding the Environmental Assessment (EA) and upcoming permitting requirements.
- EA Conditions
 - Internal and contractor resources have been deployed to ensure continuous compliance with the conditions of the EA Approval, including;
 - NextBridge Construction Compliance staff;
 - Valard Construction Monitors and Qualified Professionals (e.g. Fisheries Biologist);
 - O Indigenous Facilitators;
 - O NextBridge EA Compliance Monitors (Third Party Owner's Representatives); and
 - O Others.
 - An updated Construction Environmental Protection Plan and Operational Environmental Management Plan were submitted and approved in 2Q 2019.
 - A draft comprehensive Construction Compliance Matrix was developed and is undergoing internal review and refinement.
- Environment-Related Indigenous Discussions
 - Continued solicitation and incorporation of feedback and Traditional Ecologic Knowledge information provided by First Nation and Métis communities and agencies.
 - Documented and responded to inquiries received from First Nations and Métis with respect to the Project.
 - Supported multiple Permit Workshops and conference calls with First Nations and Métis representatives and their consultants.
 - Supported the first of many Indigenous Facilitator training sessions.

Land

- Privately Held Land
 - Negotiated settlement with one additional property owner resulting in reduction of parcels included in amended expropriation application.



- NextBridge continues to work with the remaining property owners included in the expropriation application to reach a negotiated settlement.
- Meetings with property owners to execute option exercise and easement registration documentation.
 - All signed option agreements in WFs 1, 2, 3, 7, 8, 9 and 11 have been exercised and NextBridge has commenced scheduling meetings with the remaining property owners in WFs 5, 6 and 10.
- Government Land and Permits
 - Continued engagement with MTO and Infrastructure Ontario to acquire land rights and/or obtain permits.
 - Obtained entrance and encroachment permit approvals from the MTO for WFs 1 and 7.
 - Permit applications for all other WFs are under review by the MTO with the remaining approvals expected by the Post-LTC Decision Baseline Target Date.
 - Adjustment to construction execution plan resulted due to delay in receiving Grant of Easement from the MTO.
 - NextBridge continues to work with the MTO to resolve the matter and obtain final agreements.
 - Crown land disposition applications for WFs 1 and 7 were submitted to the MNRF in August 2019.
 - Amended Crown land disposition applications for WF1 and WF 7 were resubmitted to incorporate MNRF comments.
 - These Crown land disposition apps are part of the WF packages mentioned in the Environment section above.
 - Applications for remaining construction WFs are on track for submission to meet the Post-LTC Decision Baseline Target Date.
 - Continued engagement with third party utility and rail companies to secure required access and overhead crossing approvals.
 - Agreements securing approximately 20% of required third party crossings have been completed.
- General Updates



- Continued legal surveys to support the land optioning and permitting programs.
- Responded to directly affected property owner and Crown interest holder inquiries, as required.

Regulatory

- Expropriation Application
 - On July 22, 2019, the OEB issued a Procedural Order in relation to the Expropriation Application that NextBridge filed on April 17, 2019.
 - In accordance with the Procedural Order, on July 29, 2019, the OEB staff issued to NextBridge a series of written interrogatory questions.
 - NextBridge replied to the written interrogatories and filed its Argument in Chief on August 6 and August 9, 2019, respectively, and on August 14, 2019, the OEB Staff filed a written submission.
 - On September 12, 2019, the OEB granted NextBridge's Expropriation Application, subject to conditions, allowing NextBridge to expropriate permanent and temporary interests in 12 parcels of land owned by 6 property owners.

Indigenous Engagement

- Continued Engagement Activities
 - Discussions with the 18 identified First Nation and Métis communities regarding the EWT Project are continuing.
 - Hosted permitting workshops that were offered to all 18 Indigenous groups in August and October with four separate events held;
 - O August 7th Métis Nation of Ontario;
 - August 8th Bamkushwada Limited Partnership Communities;
 - August 9th Red Sky Métis Independent Nation; and
 - August 22nd Teleconference workshop for which invites were provided to all other Indigenous groups.
- Notifications to the 18 identified First Nation and Métis Communities
 - July 18, 2019
 - Notification that WF 1 Detailed Project Plan is available for download and review.



- August 2, 2019
 - O Notification that WF 8 Detailed Project Plan is available for download and review.
 - A reminder was also provided that WFs 1 and 7 are available.
- September 5, 2019
 - Notification that WF 3 Detailed Project Plan is available for download and review.
- September 6, 2019
 - Notification which explained that construction was slated to begin in September 2019 with WFs 1, 7 and 8 being the first to start subject to permitting requirements.
- September 9, 2019
 - Notification provided that an overall benefit plan for SAR bat hibernacula was being submitted and sought feedback.
- September 16, 2019
 - Notification that WF 6 Detailed Project Plan is available for download and review.
 - Notice was also provided that WF 2 had been posted since August 9th.
- Technical Briefings with First Nation and Métis Organization's Staff and Leadership.
- Staff Meetings
 - Staff meetings and teleconferences are being held regularly with communities when required.
 - The focus of engagement for this period has mainly related to;
 - Permitting;
 - O Section 28.2 / access negotiations; and
 - The Indigenous Facilitator Program.
- Capacity Funding Agreements (CFAs)
 - Offered CFAs to the 18 identified First Nation and Métis communities to ensure adequate resources to continue with engagement on the Project during the construction phase.
 - O Progress is being made in signing of agreements.



Community/Municipal Engagement

- Continued Engagement Activities
 - Letters were sent to the project mailing list between September 4 and 6, 2019, informing them of the availability of the DPPs and of the anticipated construction start and schedule.
 - DPPs were posted to the Project website as they were finalized.
 - The Overarching DPP and DPPs for WFs 1, 2, 7 and 8 were available as of the end of the reporting period.
 - A Facebook group was established for the Project and made public during the reporting period.
 - This tool will be used to provide timely Project-related updates and to share posts relating to the Project from other Facebook pages and groups.
 - Invitations were sent to municipal elected officials in the Project area to attend a ribbon cutting ceremony planned for October 2, 2019.
 - Monitored the Project email address and hotline for Project inquiries.
 - Signage highlighting the Project hotline phone number and email address were prepared for posting at construction work camps and other strategic locations.
 - The signs are being used to communicate how Project-related questions can be submitted and potential issues reported.
- Pre-Construction Municipal Meetings
 - Met with each municipality during the week of August 12, 2019, to provide a project update including anticipated construction timing and road use agreements.
 - Discussions also included permitting for worker camps, timber assessments and local opportunities during construction.
 - The meeting with Terrace Bay was a Special Meeting of Council and a presentation was also made to Dorion Committee of the Whole.
 - Meetings with other municipalities were held with municipal staff.
- Project Website



- Project website was updated to make important information easier to find.
- The home page now includes information on construction timing and steps, employment and contracting opportunities, safety tips during construction, contact information, complaint form download and link to the DPPs page where they can be downloaded.
- Complaint Resolution Process
 - No formal complaints were submitted during this reporting period.
- Community Investment
 - Provided support to three community initiatives.
 - Additional funding opportunities are currently under review.

Engineering & Construction

- Materials
 - Awarded conductor supply contract to vendor General Cable.
 - Awarded Overhead Ground Wire (OHGW) supply contract to vendor Conex Cable.
 - Awarded Optical Ground Wire (OPGW) supply contract to vendor SFPOC.
 - Awarded tower supply contract to vendor SA-RA Energy.
- Detailed Engineering
 - Progressing to meet construction schedule.
 - Performing Grounding Studies.

Coordination Efforts with HONI

- Overview of Key Negotiations, Agreements and Coordination Efforts Between NextBridge and HONI
 - Continued discussions related to the execution of agreements with HONI regarding facility upgrades.
 - Discussions with HONI regarding the negotiation of the Construction Cost Recovery Agreement.
- Status and Changes to Access Road and Transmission Line Crossings
 - Continued engagement with HONI to acquire land rights and/or obtain permits.



- Obtained approval from HONI for longitudinal (land) access associated with WFs 3, 4, 5, 6, 9, 10 and 11.
- Met with HONI and IESO regarding overhead transmission line crossing designs.
 - HONI is now open to NextBridge crossing T1M lines.
 - NextBridge reached a tentative agreement with HONI on outstanding crossing items and is working towards securing agreements in writing.
 - O Evaluating crossing approvals received from HONI.
- Other Material Developments, Issues or Risks Related to the Coordination Between NextBridge and HONI
 - No other material developments or issues to report during this period.
 - Risks related to the Coordination efforts between NextBridge and HONI can be found below in Section 4. A.



Upper Canada Transmission, Inc. (NextBridge) Transmission Licence ET-2011-0222 Quarterly EWT Project Progress Report November 8, 2019 OEB File Number EB-2017-0182

2. Construction Schedule Update

A. Project Map





B. <u>Milestone Updates</u>

Following the OEB Decision and Order approving the LTC application the February 11, 2019, milestone dates were revised to meet a new construction schedule based on the new in-service date. Updates on the progess of these milestones are found in the table below.

Activity	Post-LTC Decision Baseline Target Date ⁶	Revised Date	Variance Reason/Potential Impact
Regulatory			
Oral Hearing Start	Completed		
OEB LTC Decision and Order	Completed		
OEB approval of authority to expropriate	Completed		
Register approved Plan of Expropriation and issue relevant Expropriation Act Notices/Offers	December 2019		
Obtain possession of expropriated lands for construction purposes	March 2020		
Environmental ⁷	·	· · · · · · · · · · · · · · · · · · ·	
Approval of the Amended EA	Completed		

⁶ Schedule dates were revised to meet a new construction schedule following the Leave to Construct award based on the new in-service date.

⁷ Apart from the EA which has been issued, based on the WF approach to construction, not all permits are needed at start of construction on the Project as some WFs will have all necessary permits to start construction.



Activity	Post-LTC Decision Baseline Target Date ⁶	Revised Date	Variance Reason/Potential Impact
Approval by MECP of Permit to Take Water	4Q 2019	N/A	A Permit to Take Water is no longer anticipated to be required and this row will be removed for the next reporting period.
Approval by MECP of ECA - Camp Wastewater	2Q 2020		
Approval by MNRF of Water Crossing Permits	3Q 2019 to Q1 2020		
Approval by MECP of Species at Risk Permits (Bat maternity roosts, Eastern whip-poor-will)	Completed		
Approval by MECP of Species at Risk Permits (Caribou, Bat hibernacula)	4Q 2019		
Approval of ECCC SARA Bat hibernacula and caribou permit	4Q 2019		
Approval of MECP Provincial Park & Conservation Reserve Management Plan Amendments	4Q 2019		
Lakehead Region Conservation Authority Permit	Completed		
Transport Canada Section 67 for Transport Canada Lands	3Q-4Q 2019		
Transport Canada Navigation Protection Act Canada permit	3Q-4Q 2019		
Fisheries and Oceans Canada Navigable Waters Permit	3Q 2019 to 1Q 2020		
Indigenous Service Canada Section 67 for Reserve Lands	3Q-4Q 2019		



Activity	Post-LTC Decision Baseline Target Date ⁶	Revised Date	Variance Reason/Potential Impact
Infrastructure Ontario Class Environmental Assessment	4Q 2019		
MTCS - Historical and Cultural Resources acceptance	4Q 2019		
Land Acquisition			
Substantial completion of signing of option agreements	Completed		
Crown Land Disposition Application filed	3Q-4Q 2019		
Third party Crossing agreements complete	3Q-4Q 2019		
MNRF approval of Crown Lease/Land Use Permits	3Q 2019 to 1Q 2020		
MNRF approval of Crown Land Work Permits	3Q 2019 to 1Q 2020		
MTO approval of Land Use and Building Permits	3Q-4Q 2019		
MTO approval of Entrance Permits	3Q-4Q 2019		
MTO approval of Encroachment Permits	3Q-4Q 2019		
Indigenous Relations			
Indigenous Service Canada approval of Land Related Permits	4Q 2019		



Activity	Post-LTC Decision Baseline Target Date ⁶	Revised Date	Variance Reason/Potential Impact
HONI - Related			
HONI approves Longitudinal Access	Approved		
HONI Approves Transmission Crossing Application	3Q 2019	4Q 2019	A tentative agreement was reached in 3Q 2019 and is now expected to be concluded in writing in 4Q 2019.
NextBridge files Sec 101 Application (If not approved by HONI)	4Q 2019		
HONI Substations commissioned ⁸	4Q 2021		
Engineering & Construction			
Commence Clearing & Access	Commenced		
Commence Geotech and Foundations	4Q 2019		
Commence Towers Assembly	4Q 2019		
Commence Towers Erection	1Q 2020		
Commence Conductor Stringing	2Q 2020		

⁸ Per Exhibit B, Tab 11, Schedule 1 of Hydro One Station work LTC application.



Activity	Post-LTC Decision Baseline Target Date ⁶	Revised Date	Variance Reason/Potential Impact
Work Front 1 - Commence Clearing & Access	Commenced		
Work Front 1 - Commence Geotech and Foundations	4Q 2019		
Work Front 1 - Commence Towers Assembly	4Q 2019		
Work Front 1 - Commence Towers Erection	1Q 2020		
Work Front 1 - Commence Conductor Stringing	1Q 2020		
Work Front 2 - Commence Clearing & Access	1Q 2020		
Work Front 2 - Commence Geotech and Foundations	1Q 2020		
Work Front 2 - Commence Towers Assembly	1Q 2020		
Work Front 2 - Commence Towers Erection	1Q 2020		
Work Front 2 - Commence Conductor Stringing	2Q 2020		
Work Front 3 - Commence Clearing & Access	1Q 2020		
Work Front 3 - Commence Geotech and Foundations	1Q 2020		
Work Front 3 - Commence Towers Assembly	2Q 2020		



Activity	Post-LTC Decision Baseline Target Date ⁶	Revised Date	Variance Reason/Potential Impact
Work Front 3 - Commence Towers Erection	2Q 2020		
Work Front 3 - Commence Conductor Stringing	3Q 2020		
Work Front 4 - Commence Clearing & Access	2Q 2020		
Work Front 4 - Commence Geotech and Foundations	2Q 2020		
Work Front 4 - Commence Towers Assembly	3Q 2020		
Work Front 4 - Commence Towers Erection	3Q 2020		
Work Front 4 - Commence Conductor Stringing	3Q 2020		
Work Front 5 - Commence Clearing & Access	1Q 2020		
Work Front 5 - Commence Geotech and Foundations	1Q 2020		
Work Front 5 - Commence Towers Assembly	4Q 2020		
Work Front 5 - Commence Towers Erection	1Q 2021		
Work Front 5 - Commence Conductor Stringing	1Q 2021		
Work Front 6 - Commence Clearing & Access	1Q 2020		



Activity	Post-LTC Decision Baseline Target Date ⁶	Revised Date	Variance Reason/Potential Impact
Work Front 6 - Commence Geotech and Foundations	1Q 2020		
Work Front 6 - Commence Towers Assembly	1Q 2020		
Work Front 6 - Commence Towers Erection	1Q 2020		
Work Front 6 - Commence Conductor Stringing	3Q 2020		
Work Front 7 - Commence Clearing & Access	1Q 2020		
Work Front 7 - Commence Geotech and Foundations	2Q 2020		
Work Front 7 - Commence Towers Assembly	3Q 2020		
Work Front 7 - Commence Towers Erection	3Q 2020		
Work Front 7 - Commence Conductor Stringing	4Q 2020		
Work Front 8 - Commence Clearing & Access	1Q 2020		
Work Front 8 - Commence Geotech and Foundations	3Q 2020		
Work Front 8 - Commence Towers Assembly	4Q 2020		
Work Front 8 - Commence Towers Erection	4Q 2020		



Activity	Post-LTC Decision Baseline Target Date ⁶	Revised Date	Variance Reason/Potential Impact
Work Front 8 - Commence Conductor Stringing	1Q 2021		
Work Front 9 - Commence Clearing & Access	1Q 2020		
Work Front 9 - Commence Geotech and Foundations	3Q 2020		
Work Front 9 - Commence Towers Assembly	4Q 2020		
Work Front 9 - Commence Towers Erection	4Q 2020		
Work Front 9 - Commence Conductor Stringing	2Q 2021		
Work Front 10 - Commence Clearing & Access	3Q 2020		
Work Front 10 - Commence Geotech and Foundations	3Q 2020		
Work Front 10 - Commence Towers Assembly	4Q 2020		
Work Front 10 - Commence Towers Erection	1Q 2021		
Work Front 10 - Commence Conductor Stringing	3Q 2021		
Work Front 11 - Commence Clearing & Access	3Q 2020		
Work Front 11 - Commence Geotech and Foundations	3Q 2020		



Activity	Post-LTC Decision Baseline Target Date ⁶	Revised Date	Variance Reason/Potential Impact
Work Front 11 - Commence Towers Assembly	1Q 2021		
Work Front 11 - Commence Towers Erection	2Q 2021		
Work Front 11 - Commence Conductor Stringing	3Q 2021		
Project Construction Substantially Complete	4Q 2021		
Project Commissioning Commences	4Q 2021		
Project Commissioning Complete - In Service	4Q 2021		
Final acceptance and release of General Contractor	4Q 2021		



C. <u>Permit and Approval/Authorization Requirements by Work Front</u>

Work Front	Remaining Major Permits and Approvals/Authorizations ⁹	Target Date
1	1 Species at Risk, 65 Water Body Crossings (78 local received), 32 Overhead Crossings 4 Work Permit and Land Use Permit, 0 Access	September 2019
7	0 Species at Risk, 30 Water Body Crossings, 13 Overhead Crossings, 3 Work Permit and Land Use Permit, 0 Access	October 2019
2	0 Species at Risk, 26 Water Body Crossings, 5 Overhead Crossings 4 Work Permit and Land Use Permit, 24 Access	October 2019
6	2 Species at Risk (including Caribou), 70 Water Body Crossings (2 federal), 60 Overhead Crossings, 3 Work Permit and Land Use Permit,1 Phase I ESA, 437 Access	December 2019
8	0 Species at Risk, 27 Water Body Crossings, 16 Overhead Crossings, 4 Work Permit and Land Use Permit, 19 Access	November 2019
3	1 Species at Risk, 51 Water Body Crossings, 34 Overhead Crossings 6 Work Permit and Land Use Permit,1 Phase I ESA, 291 Access	November 2019
9	0 Species at Risk, 53 Water Body Crossings, 32 Overhead Crossings 4 Work Permit and Land Use Permit, 146 Access	November 2019
10	0 Species at Risk, 101 Water Body Crossings, 7 Overhead Crossings 4 Work Permit and Land Use Permit, 314 Access	November 2019
4	0 Species at Risk, 21 Water Body Crossings, 3 Overhead Crossings 4 Work Permit and Land Use Permit, 242 Access	November 2019
5	1 Species at Risk, 77 Water Body Crossings, 8 Overhead Crossings 3 Work Permit and Land Use Permit, 312 Access	December 2019

⁹ The number of Major Permits and Approvals/Authorizations are subject to change as access plans evolve.



Upper Canada Transmission, Inc. (NextBridge) Transmission Licence ET-2011-0222 Quarterly EWT Project Progress Report November 8, 2019 OEB File Number EB-2017-0182

Work Front	Remaining Major Permits and Approvals/Authorizations ⁹	Target Date
11	2 Species at Risk, 90 Water Body Crossings, 25 Overhead Crossings 3 Work Permit and Land Use Permit, 286 Access	December 2019



3. Construction Cost Update

A. <u>Project Cost Update Summary</u>

Construction costs for the EWT Project are forecasted to be on budget when compared to the LTC application budget. While increases have been identified in certain budget areas, the use of the previously-budgeted value for contingency allows for sufficient allocation of funds to address areas where budget increases were identified.

After the issuance of the LTC, NextBridge undertook a re-budgeting effort based on the in-service date change from 4Q 2020 to 4Q 2021. The re-budgeting effort incorporated the timing of Indigenous and stakeholder consultation, environmental studies, permits, approvals, and authorizations to support the new in-service date.

As a result of the re-budgeting effort, NextBridge identified that many of the cost breakdowns contained within the originally filed LTC application budget from July 31, 2017, could be more efficiently tracked during the construction phrase of the Project. For example, Indigenous consultation and participation activities in communities were combined to better reflect the nature of engagement on a community-by-community basis, instead of by activity. The combination of categories is expected to provide increased clarity on the tracking of the forecasted costs.



B. <u>Project Cost Update Table</u>

		Actuals	s Spent		Budget			Forecast Budget Variance		
Cost Categories for NextBr	A Spent This Reporting Period \$	B Total Spent To Date \$	C Budget Per LTC Application \$	D=C-B Budget Remaining \$	E=D/C*100 Budget Remaining %	F Forecast Budget Change \$	G Forecast Budget Change %	H Revised Total Budget \$	Reasons For Change	
Engineering & Construction		32,561,784	75,025,240	572,761,388	497,736,148	87%	41,505,901	7%	614,267,289	Revised based on in-service date
1	Engineering, Design and Procurement	1,184,629	5,190,984	19,342,245	14,151,261	73%				
2	Materials and Equipment	4,367,708	4,367,708	89,408,231	85,040,523	95%				
8	Site Clearing, Access	20,159,761	22,279,561	107,463,339	85,183,778	79%				
9	Construction	6,849,687	43,186,987	356,547,573	313,360,586	88%				
Environmental & Remediation Activ	Environmental & Remediation Activities		8,622,413	26,929,260	18,306,847	68%	4,348,606	16%	31,277,866	Revised based on in-service date
3	Environmental and Regulatory Approvals	2,446,630	8,622,413	13,030,561	4,408,148	34%				
10	Site Remediation		-	13,898,699	13,898,699	100%				
Indigenous Activities		1,002,050	8,741,151	20,211,000	11,469,849	57%	3,442,555	17%	23,653,555	Revised based on in-service date
5	Indigenous Economic Participation	529,235	4,275,107	7,000,000	2,724,893	39%				
6	Indigenous Consultation	472,815	4,466,044	13,211,000	8,744,956	66%				
4	Land Rights (excludes Aboriginal)	3,359,701	8,655,376	23,830,512	15,175,136	64%	-	0%	23,830,512	
7	Other Consultation	58,617	456,954	2,530,194	2,073,240	82%	-	0%	2,530,194	
11	Contingency	-	-	49,399,445	49,399,445	100%	(49,297,063)	-100%	102,382	Allocation of Contingency
12	Regulatory	407,328	2,715,022	5,405,078	2,690,056	50%	-	0%	5,405,078	
13	EWT Management	312,449	3,259,953	4,900,644	1,640,691	33%	-	0%	4,900,644	
Total	Project Spend	40,148,559	107,476,110	705,967,521	598,491,412	85%	-	0%	705,967,521	
14	Interest During Construction (IDC) ¹	868,906	4,598,654	31,003,000	26,404,346	85%	-	0%	31,003,000	
Total Con	nstruction Costs ^{2 3}	41,017,466	112,074,763	736,970,521	624,895,758	85%	-	0%	736,970,521	

1 IDC has not been reforecasted as interest rates will vary based on the OEB prescribed rates

2 On the record (EB-2017-0182)

3 Development Costs eligible for consideration as construction costs of \$5.3 MM not reflected in column B. (OEB Decision, December 20, 2018)



C. Project Cost Update Summary by Department

Engineering & Construction (E&C)

The Project cost forecast for this department has not changed since the last reporting period.

Environment & Remediation Activities

The Project cost forecast for this department has not changed since the last reporting period.

Indigenous Activities

The Project cost forecast for this department has not changed since the last reporting period.

Land Rights (Non-Indigenous)

The Project cost forecast for this department has not changed since the last reporting period.

Other Consultation

The Project cost forecast for this department has not changed since the last reporting period.

Regulatory

The Project cost forecast for this department has not changed since the last reporting period.

EWT Management

The Project cost forecast for this department have not changed since the last reporting period.



4. Risk Management

A. <u>Risk Management Issues, Potential Impacts and Mitigation Measures</u>

Risk Item #	Risk Description	Likelihood of Risk Occurring (High, Medium, Low)	Description of Impact of the Risk on the Project	Risk on the Project (High, Medium, Low)	Mitigation of Risk and/or Impact
1	MECP delay in issuing caribou and bat hibernacula SAR permit		 Delay in receipt of the caribou and bat hibernacula permit will force schedule compression in later years to meet the in-service date Delay in issuance of the permit past December 1, 2019, may require the Project to work in restricted activity periods that were planned to be avoided 		 Schedule risk can be mitigated through compression of construction activities in 2020-2021
2	Agency delay in issuance of other environmental permit(s)		• Delay in issuance of required approvals listed in table 2.C. to start clearing would increase cost due to the schedule compression required to mitigate schedule slip		• WF approach is designed to allow staggered issuance of permit approvals to facilitate staging of the start of construction and the start of construction in multiple segments simultaneously

Low



Risk Item #	Risk Description	Likelihood of Risk Occurring (High, Medium, Low)	Description of Impact of the Risk on the Project	Risk on the Project (High, Medium, Low)	Mitigation of Risk and/or Impact
3	Delay in access to private, provincial, and federal lands		 Lands not accessible in time for construction commencement date will affect Project schedule Private lands not accessible through expropriation Public lands not accessible through MNRF process Federal lands not accessible through reserve crossing permits 		 Pursue regulatory avenues available (e.g. expropriation with OEB, provincial mining recorder order) where access is not granted; establish work around/ accommodation plan for "no access" parcels in construction planning Work with government on public and federal land access
4	Delay in HONI station work	Unknown ¹⁰	 If stations are not ready for energization it will delay Project in-service date 		 Communication and coordination with HONI during construction
5	Delay in accessing HONI's crossings of access roads and transmission lines		 Significant portions of lands not accessible in time for access road construction and stringing across HONI 		 Continue to work with HONI to resolve crossing and access issues Engagement with HONI

¹⁰ This risk is dependent on HONI and the current status is only known by HONI.



Risk Item #	Risk Description	Likelihood of Risk Occurring (High, Medium, Low)	Description of Impact of the Risk on the Project	Risk on the Project (High, Medium, Low)	Mitigation of Risk and/or Impact
			ROW lands will affect Project schedule		has led to crossing approvals and further discussion on allowing NextBridge to cross the HONI T1M lines
					 A Section 101 application could also be filed with the OEB for approval of required crossings if required



Risk Item #	Risk Description	Likelihood of Risk Occurring (High, Medium, Low)	Description of Impact of the Risk on the Project	Risk on the Project (High, Medium, Low)	Mitigation of Risk and/or Impact
6	Legal Challenges		 Parties may file applications for judicial review or appeal of OEB decisions or other permit approvals and seek to stay construction Risk has materialized in a current challenge from BZA First Nation There may be some cost risk involved with defending these legal challenges 		 Continue to proactively engage with First Nation and Métis communities, landowners and all other stakeholders in order to identify and address concerns
7	Public Protests and/or Displays of Project Opposition		 Potential for reputational impacts, but is unlikely to prevent forward progress given provincial approvals have been obtained 		 Additional discussion and attempts to satisfy concerns



Risk Item #	Risk Description	Likelihood of Risk Occurring (High, Medium, Low)	Description of Impact of the Risk on the Project	Risk on the Project (High, Medium, Low)	Mitigation of Risk and/or Impact
8	Labour Strikes		 Potential for labour actions and disruption/shutdown of construction activities, which could lead to cost and schedule impacts Potential for media coverage and undesirable project optics 		 Follow Project labour protocols as per master agreement with Canadian Union of Skilled Workers (CUSW) Foster and maintain good relations and communication with CUSW and its members. Be cognizant of and manage potential for other unions to approach and recruit any non-CUSW members Media response would be developed to provide public response


5. OEB Requests

APPENDIX A

A. Introduction

In its October 10, 2019, letter to NextBridge, the OEB noted that according to the Quarterly Report filed on August 30, 2019, NextBridge had allocated 99.8% of its \$49 million contingency. To better understand the impact of this allocation on the overall budget and potential future Project cost increases, the OEB directed NextBridge in this Quarterly Report to provide ". . . a detailed explanation of what it is doing to actively manage its budget, reduce risks, and contain costs, including mitigating any potential cost increases for the East-West Tie Project."

In response to the OEB's direction, and to provide context, upon receiving the LTC in February of 2019, NextBridge engaged all cost category disciplines in the following activities:

- Updating the construction schedule to meet an October 2021 in-service date (ISD); and
- Re-budgeting based on the new construction start date and the new ISD.

The revision of the construction schedule and re-budgeting exercise informed the OEB Quarterly Report submitted on August 30, 2019. That was the first and only Quarterly Report submitted to the OEB since April 2019.

As part of the re-budgeting activities, in order to contain costs and mitigate risks, NextBridge undertook the following actions:

- As required by the OEB, NextBridge coordinated with HONI to align the new ISD of 4Q 2021 with the ISD for the HONI substations.
- Based on the new ISD, the construction schedule was updated to maximize the efficiency of working seasons and construction in environmentally sensitive areas including SAR habitat.
- Based on the new construction schedule, NextBridge aligned the individual department team leads' cost categories with the updated schedule and adjusted deliverables to the new ISD, including the identification and mitigation of risks associated with the new ISD.
- NextBridge also assessed current progress versus the updated construction schedule.
 - In some instances, to meet the revised construction schedule, activity duration needed to be modified.
 - For example, the environmental permitting schedule needed to be updated based on the conditions in the approved EA for additional stakeholder and Indigenous review of DPPs.



- To further mitigate risks and control costs, NextBridge assessed resource needs and made changes in order to be more efficient during construction.
 - For example, the general contractor was chosen to perform the environmental permitting work since they were already in the field for construction.
 - This approach mitigated the risks associated with the need to coordinate the timing of obtaining required environmental permits in time to ensure construction could proceed without interruption.
 - As a cost control measure, this approach reduced additional training and mobilization requirements.
- All cost category discipline leads and teams worked with NextBridge's Project Director and the Project Management Office to detail their costs, contracts, and timing of spend based on this effort.

B. <u>Allocation of Contingency</u>

During the re-budgeting and updating of the construction schedule, NextBridge proactively allocated contingency funds to cost category disciplines based on a forecasted risk allocation, rather than waiting for the actual expenditure to be incurred to allocate the contingency. The allocation of contingency took into account the new ISD, known contracted rates, forecasted costs and actual costs spent to date. Therefore, while the contingency was allocated in a proactive manner, it was with the understanding that known costs (both spent and contracted) would be actively managed so as to reduce risk and associated cost to the furthest extent possible. This proactive approach to the allocation of contingency also provided increased transparency of NextBridge's forecast of overall construction costs.

C. Cost Management

Monitoring and Reporting

With the new Project ISD and known contracted rates (discussed below), forecasted costs, and actual costs spent to date, NextBridge is focused on construction execution and monitoring for risk mitigation and cost control. NextBridge also uses the following process to report to the OEB on its progress on a quarterly basis.

On a monthly basis the following activities are performed by the Project Management Office and cost category discipline leads to monitor, record and control costs and mitigate Project risks:

- Cost accounting is maintained by NextBridge's Project Management Office.
- Costs are compared on a budget versus actual basis to identify any variances.
 - Variances are used by the Project Management Office to maintain cost tracking.



- The Project Management Office meets with the cost category discipline lead on a monthly basis to discuss cost and activity tracking and identify any variances (whether positive or negative) and any unanticipated expenditures that need to be included in the next forecast.
- Each month this budget review assesses:
 - O Cost performance;
 - Schedule performance;
 - O Identification of new risk factors;
 - O Any major changes to forecast; and
 - Vendor performance.
- The Project Management Office and the cost category discipline lead also monitor vendor costs against the contractual amounts including purchase orders (POs) where a comparison of work progress and payments is performed to ensure appropriate billing.
- The Project Management Office identifies variations identified and any overall Project cost impacts and reports these findings to the Project Director. The Project Director then uses the information to ensure all key Project milestones are being completed as planned and costs are being controlled. If there are outstanding questions that need to be discussed further, the Project Director and Project Management Office schedule meetings with the affected discipline team leads to review the risks, the potential for cost changes and mitigation plans. In addition to cost monitoring, and to ensure Project progress and risk mitigation, the Project Director is also actively tracking and reviewing each discipline's practices including:
 - Reviewing performance measures (e.g. land procured, permits obtained, work fronts progression, construction milestones, etc.);
 - Schedule performance;
 - O Risk management plans; and
 - Change management practices (detailed below).
- The Project Director holds regular meetings to monitor overall progress and actively identify any cross functional discipline issues that need addressing or could introduce new risks to the Project.
- Based on the above, any newly identified cost variances or risks will be reported in the OEB quarterly reports.

This monitoring and reporting allows NextBridge to manage the expected budget as most costs are now essentially fixed for the majority of activities.

Procurement Processes



As of 4Q 2019, nearly 90% of construction costs have been contracted, which reduces future volatility in pricing and ensures resource availability due to the contracts having an agreed upon price and negotiated scope of work. The scope of work has been developed by an experienced supply chain team and the NextBridge cost category discipline lead's specific Project knowledge, both of which have been applied to reduce Project risks and costs.

Examples of effective procurement processes to contain costs and mitigate risks include:

- E&C
 - Securing a fixed price engineering, procurement, and construction (EPC) contract with the general contractor that assigns the risk for certain aspects of the Project including labor cost changes, weather impacts during construction, sub-surface risk mitigation, and material costs.
 - Allocation of contingency to allow for the renegotiation of unit rates for a 4Q 2021 ISD.
- Indigenous Engagement
 - The majority of the expected CFAs with Indigenous groups have been executed, making previously unknown costs more certain.
- Environment
 - The majority of activities have been contracted with the general contractor, which includes a revised work scope as a result of the approved Amended EA.

In order to improve cost certainty, NextBridge has competitively bid the following fixed price contracts:

- Steel Pole Structures;
- Towers;
- Conductor;
- Overhead ground wire;
- Optical ground wire;
- EPC; and
- Environmental activities, such as preparing DPPs, obtaining work permits, and obtaining a variety
 of environmental permits such as waterbody crossing permits and SAR permits.

NextBridge entered into these fixed contracts as a cost containment measure to reduce the likelihood of significant budget increases to the Project.

Change Management Practices



A significant cost management tool is the change management practice that NextBridge employs. While NextBridge has not processed, nor has knowledge of any pending change orders since the re-budgeting effort, it is important to detail this cost containment process in the event change orders are processed in the future. Under this change management practice, costs for work cannot exceed the set contract amount for the above activities unless a change order is approved.

NextBridge follows the below process where change orders must comply to ensure costs are managed appropriately:

- Coordination with supply chain subject matter experts to ensure the change order was not a part of the original scope of work.
- The cost category discipline lead and supply chain representative(s) perform a thorough review of the scope of work to determine the evolution of the change that occurred and how it related to the original scope of work.
- If the cost category discipline lead determines that a change order should be proposed, they must provide the Project Director with:
 - The reason for the change;
 - The criticality of this change to Project completion;
 - The issue(s) that caused the change;
 - An analysis from the supply chain team of the scope of work and proposed change;
 - The modified new work scope with new risk mitigations that help avoid future changes; and
 - An evaluation of alternatives including an evaluation that there is no other less costly course of action.

The change order will not be approved until the cost category discipline leads adheres to the Budget Variance Memorandum Policy outlined below.

Budget Variance Memorandum Policy and Procedure (Attachment A)

NextBridge is committed to containing its costs for the Project. As noted above, NextBridge is accomplishing this goal by securing contracts for nearly 90% of the construction costs, which, in turn, reduces the likelihood for budget increases. Since the Project was re-budgeted for the new ISD, NextBridge implemented a cost containment tool to review and control proposed budget increases. The cost containment tool is used prior to any increases in change orders. The tool is a Budget Variance Memorandum Policy and Procedure which requires cost category discipline leads to notify the Project Director of a potential budget increases related to their portion of the Project's budget.

After providing notification to the Project Director, the discipline lead is required to provide a detailed memorandum to the Project Director which identifies the need for the budget increase and



provides a thorough analysis of the drivers and justification for the proposed budget increase. The discipline lead then meets with NextBridge's Project Director, Senior Project Manager, Senior Director of Business Management, Senior Director of Engineering and Construction, Manager of Project Controls and Managing Attorney to:

- Review and discuss the request for a budget increase; and
- Obtain a decision on whether the request for a budget increase will be approved.

As a cost containment measure, the Project Director will only allow an increase to a cost category's budget if it is critical to constructing and operating the Project.

Reached Agreement with HONI to Cross HONI's Existing T1M Line

During the LTC hearing, NextBridge proposed (in its response to Staff IRR #12) to cross HONI's existing T1M line. HONI objected to NextBridge crossing its T1M line due to reliability concerns, and, instead, proposed that the T1M would have to be relocated, which would have resulted in additional costs of approximately \$1 to \$3 million¹¹. Recently, HONI and NextBridge worked with the IESO to come to a verbal agreement that would allow NextBridge to cross HONI's existing T1M line, provided that certain operational criteria are met. HONI's confirmation that T1M may be crossed without relocation furthers NextBridge's efforts to contain and manage costs, and NextBridge is expecting to secure this agreement in writing in 4Q, 2019.

¹¹ See Revised EB-2017-0364 HONI Lake Superior Link TC2 Thursday May 17 2018 p. 263.



D. Risk Register

In addition to the cost management practices above, the active management of the budget is also facilitated by the understanding and maintenance of a risk register. In order to maintain the overall project cost estimate provided in the last Reporting Period, the monitoring of risks and the reduction of potential likelihood of the realization of risks is ongoing. In addition to the risk management issues, potential impacts and mitigation measures reported in Section 4. A. of this Quarterly Report, the following risks, including many which were reported in the LTC Interrogatory #50¹² are also being actively managed in order to mitigate cost and schedule risk.

Risk Item #	Risk Item Description	Likelihood of Risk Occurring (High, Medium, Low)	Description of Impact of the Risk on the Project	Risk on the Project (High, Medium, Low)	Mitigation of Risk and/or Impact
1	Specific siting changes (route or soil conditions)		 Impacts to engineering design Impacts on timing for acquiring necessary land rights and/or permits if new owners are encountered 		 Mitigation Finalized route in the Project development process to allow for adequate time to consult on and perform required studies of the impacted areas Worked with land services on design options Ensured schedule allows for engineering adjustment of design and route Signed fixed price contract with contractor to mitigate cost risk Conducted geotechnical investigations to further mitigate risk

¹² Filed: 2018-09-24 EB-2017-0182/EB-2017-0194/EB-2017-0364 Exhibit I.NextBridge.STAFF.50. Risk Items 3, 20 and 28 from Interrogatory #50 have been removed as they are no longer valid. Risk Items 1, 2, 4, 5, 6, 7, 8 and 24 from Interrogatory #50 have been consolidated into new risk items and are now being tracked in Section 4. A. of the Quarterly OEB Report.





Risk Item #	Risk Item Description	Likelihood of Risk Occurring (High, Medium, Low)	Description of Impact of the Risk on the Project	Risk on the Project (High, Medium, Low)	Mitigation of Risk and/or Impact
					 Mitigation has been effective and continues to be implemented
2	Landowners claim mineral or mining rights delays land acquisition		 Impacts to schedule and costs associated with acquiring required land rights 		 Mitigation Limited exposure to future mining rights issues through continued consultation efforts NextBridge developed an approach to compensate for these types of interests and continues to work towards obtaining required consent agreements and easements where required Purchased land in fee simple where required Mining Land Tribunal mediations are taking place in order to acquire outstanding land rights Rerouting is still being considered where required Mitigation has been effective and continues to be implemented
3	Archaeological sites encountered		 Impacts to the construction schedule and costs due to delays from additional unknown archaeological assessment(s) 		 Mitigation Stage 1 and Stage 2 archeological work was completed to mitigate risk by identifying archaeological sites to confirm presence within the proposed corridor Engaged local Indigenous monitors to



Risk Item #	Risk Item Description	Likelihood of Risk Occurring (High, Medium, Low)	Description of Impact of the Risk on the Project	Risk on the Project (High, Medium, Low)	Mitigation of Risk and/or Impact
					 review structure locations Moved footprint and structures when possible to avoid known areas of archaeological potential Developed working relationship with regulators to determine required mitigation measures Preplanned for unforeseen occurrences through an unexpected discovery mitigation plan incorporated into the Construction Environmental Protection Plan (CEPP) Schedule and cost risks are expected to be contained and/or minimized through implementation of the contingency plan in the CEPP Mitigation has been effective and continues to be implemented
4	Transmission structure fabrication quality and timely deliveries		 Delays on the fabrication of structures and deliveries could impact Project schedule Quality requirements of structures must be met in order to ensure durability and longevity of infrastructure 		 Mitigation Implemented early procurement strategy which considered multiple supplier bases and reviewed on site Quality Assurance / Quality Control program Applying sound project management practices to manage supplier Close coordination with suppliers and contractors to avoid schedule delays



Risk Item #	Risk Item Description	Likelihood of Risk Occurring (High, Medium, Low)	Description of Impact of the Risk on the Project	Risk on the Project (High, Medium, Low)	Mitigation of Risk and/or Impact
					 Holding weekly conference calls with fabricators to ensure design and delivery compliance NextBridge procured structures well before they were required for construction to mitigate risk Mitigation has been effective and continues to be implemented
5	Material supply fabrication quality and delivery (rock anchors, insulators, conductor, OPGW/ OHGW, etc.)		 Delays on the fabrication of materials and deliveries could impact Project schedule Quality requirements of materials must be met in order to ensure durability and longevity of infrastructure 		 Mitigation Developed an early stage strategic sourcing and storage plan to mitigate material risk Material supplier awards have been completed for conductor, OPGW and OHGW Contracts for these services have been awarded Mitigation has been effective and continues to be implemented
6	Ensure adequate structure Grounding		 Grounding requirements must be met in order to ensure durability and longevity of infrastructure 		 Mitigation Flash density studies performed to identify lightening frequency and intensity Prepared implementation of counterpoise measures in the event the design required them Conducted soil resistivity studies Decided to use lightning arresters to meet



Risk Item #	Risk Item Description	Likelihood of Risk Occurring (High, Medium, Low)	Description of Impact of the Risk on the Project	Risk on the Project (High, Medium, Low)	Mitigation of Risk and/or Impact
					 OEB minimum technical requirements Mitigation measure of early studies indicated need for changes to structures This risk has been mitigated in the design through the use of lightning arresters consistent with mitigation plan Lighting arrester usage was incorporated into the EPC contract to minimize potential cost risks Mitigation has been effective and continues to be implemented
7	Civil work (clearing, access, pad prep & foundations) needs to be completed in timely order to support structure delivery and installation		 Delays the completion of civil work could impact Project schedule 		 Mitigation Secure civil services contracts early with multiple contractors Impact Risk was realized Despite securing civil services early as planned, a risk to the schedule of completing this work may be impacted by delayed permitting Reconfiguring workforce allotments to mitigate schedule risk Mitigation has been effective and continues to be implemented
8	Uncertain subsurface conditions could		 Delays the completion of geotechnical work could impact Project 		MitigationDesktop study and field observations completed

Low

Unknown

High

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Risk Item #	Description	Likelihood of Risk Occurring (High, Medium, Low)	Description of Impact of the Risk on the Project	Risk on the Project (High, Medium, Low)	Mitigation of Risk and/or Impact
	affect foundation installations (Geotechnical work)		schedule		 Alternative foundation options prepared for all conditions, each with differing cost implications Signed fixed price contract with contractor to mitigate cost risk Geotechnical investigations have been completed to date to mitigate risk Mitigation has been effective and continues to be implemented
9	Reluctance of utilities or railroad to grant line energization without cathodic mitigation in place		 In-service delays could result if agreements are not reached in a timely fashion 		 Mitigation Identified facility locations and initiated discussions with owners early so that locations and mitigation plans could be determined NextBridge continues to consult with utilities, including Hydro One (HONI) and CP Rail Mitigation has been effective and continues to be implemented
10	Increase in equipment and material costs		 Costs could rise if not mitigated through appropriate controls 		 Mitigation Strategically implemented early Project phase procurement strategy to secure potential future price increases Developed plan for escalation The General Contractor now assumes pricing risk for equipment and material costs



Risk Item #	Risk Item Description	Likelihood of Risk Occurring (High, Medium, Low)	Description of Impact of the Risk on the Project	Risk on the Project (High, Medium, Low)	Mitigation of Risk and/or Impact
					 Mitigation has been effective and continues to be implemented
11	Weather or seasonal conditions affect construction		 Cost increases and schedule delays could result from adverse weather conditions encountered during construction 		 Mitigation Scheduled resources and activities around positive and negative weather events. Alternative construction methodologies and associated cost implications were investigated Contingency increased to account for likely weather scenarios Construction plan incorporates seasonality to mitigate risk Mitigation has been effective and continues to be implemented
12	Highway / Road Repairs		 Damage to highways and roads resulting from the transportation of equipment and materials could increase costs to the Project Timely accessibility to roads is required to ensure Project schedule adherence 		 Mitigation Identified road use and access requirements early Developed alternative delivery routes and methods to allow for avoidance of vulnerable roads Where no alternatives routes existed, consulted with owners / authorities to ensure alternative access availability based on schedule coordination as required



Risk Item #	Risk Item Description	Likelihood of Risk Occurring (High, Medium, Low)	Description of Impact of the Risk on the Project	Risk on the Project (High, Medium, Low)	Mitigation of Risk and/or Impact
					 Significant engagement with Ministry of Transportation and municipalities for access routes has mitigated risk Currently entering into road use agreements with municipalities Potential road damages as a result of the works of the EPC will be the responsibility of the EPC Mitigation has been effective and continues to be implemented
13	Having adequate and qualified construction resources available to meet Commercial Operation Date (COD)		 Schedule delays could result if adequate and qualified construction resources are not available to meet COD 		 Mitigation Developed a strategic sourcing plan with large transmission contractors familiar with this type of construction early in order to mitigate labour risk Analyzed local labour markets and develop active strategy to engage the local workforce Worked with Indigenous partners to develop skilled Indigenous work force capabilities Secured capable contractors to facilitate construction schedule Contractor familiar with this type of construction has been contracted and is working with local communities and contractors, including Indigenous



Risk Item #	Risk Item Description	Likelihood of Risk Occurring (High, Medium, Low)	Description of Impact of the Risk on the Project	Risk on the Project (High, Medium, Low)	Mitigation of Risk and/or Impact
					 resources, and has begun awarding work and construction activities utilizing these local assets 190 participants in the Indigenous training program graduated from their applicable courses Mitigation has been effective and continues to be implemented
14	Having available helicopter resources which will be used for over 80% of line construction		 Cost increases and schedule delays could result if adequate helicopter resources are not available to meet COD 		 Mitigation Significantly limited the amount of helicopter work required Secured EPC contractor with required helicopter resources available in advance Ensured lay down and tower erection areas are available and multiple crews are engaged to fabricate structures and minimize helicopter down time Contractor's preferred installation plans will minimize use of heavy-lift helicopters given the ground access planned Mitigation has been effective and continues to be implemented
15	Reluctance of Independent Electricity System Operator (IESO)		• Timely crossing agreements are required in order to facilitate timely construction activities to		 Mitigation Identified all crossing locations early Began consent discussions with HONI early Minimized crossings through route



Risk Item #	Risk Item Description	Likelihood of Risk Occurring (High, Medium, Low)	Description of Impact of the Risk on the Project	Risk on the Project (High, Medium, Low)	Mitigation of Risk and/or Impact
	to grant transmission line clearances to perform crossing activities		avoid schedule delays		 alignment Developed pulling plan to possibly work around if required Redirected work to other locations where possible mitigation plan continues to be implemented Discussions are continuing with HONI Mitigation has been effective and continues to be implemented
16	Concrete availability		 Adequate concrete resources are required in order to avoid scheduling delays and unanticipated cost increases 		 Mitigation Foundations were designed to minimize concrete requirements Material sourcing plan was developed to mitigate risk Material availability to contractor is more than adequate Mitigation has been effective and continues to be implemented
17	Hunting Season		 Working around active hunting areas could pose safety risks for workers and cause potential schedule delays 		 Mitigation Dealing directly with local hunting guides to provide them with updated construction information during hunting season Mitigation has been effective and continues to be implemented
18	Offsite service power and T1		 Inability to establish communication at construction trailers 		 Mitigation Engaged early with local utilities and communities to gauge capabilities to



Risk Item #	Risk Item Description	Likelihood of Risk Occurring (High, Medium, Low)	Description of Impact of the Risk on the Project	Risk on the Project (High, Medium, Low)	Mitigation of Risk and/or Impact
	communications installed at construction trailers		using existing technology and infrastructure could cause cost impacts		 support needs Rural locations appeared to require significant work to provide service of both power and communications Diesel generators and satellite communications were considered Contractor selected camp locations with required services available nearby Camps will now be located in close proximity to municipal services to mitigate this risk Mitigation has been effective and continues to be implemented
19	Contracts and Price Changes due to uncertain Project work scope aspects		 Cost increases could result Schedule delays could result 		 Mitigation Implemented an early stage procurement strategy to secure potential future price increases Nearly 90% of construction costs are already contracted on a PO Minimal amounts of costs subject to future negotiation, inflation or other variability In addition to costs contracted on PO's, the majority of Indigenous agreements have been executed which further reduces future variability and exposure



Risk Item #	Risk Item Description	Likelihood of Risk Occurring (High, Medium, Low)	Description of Impact of the Risk on the Project	Risk on the Project (High, Medium, Low)	Mitigation of Risk and/or Impact
					 Mitigation has been effective and continues to be implemented



ATTACHMENT A

Version 2.0 10/2019

NextBridge Budget Variance Authorization Request Memorandum Policy and Procedure

Scope

This policy and procedure applies to NextBridge's East-West Tie Project ("Project").

Purpose

This policy sets forth the analysis and process for reviewing a request to increase a Business Unit's budget for the Project.

Process

- 1. <u>Timeline for Budget Variance Authorization Request Memorandum</u>: A Team Lead shall draft a Budget Variance Authorization Request Memorandum ("BVAR Memorandum") within the following timeline, if possible:
 - a. within five days of the Project Director determining that the applicable Business Unit's request for an increase is beyond that Business Unit's total budget for the Project; and,
 - b. at least ten business days before the Business Unit's budget increase is required.
- 2. <u>Distribute Budget Variance Authorization Request Memorandum to Distribution List</u>: The Team Lead requesting the budget variance will distribute the BVAR Memorandum to the Distribution List.
- 3. Organize Meeting to Discuss Budget Variance Authorization Request Memorandum: The Director of Development in Business Management will organize a meeting for the Distribution List to discuss the BVAR Memorandum with the Team Lead. If possible, this meeting should take place a minimum of five (5) business days after the Team Lead distributed the BVAR Memorandum to the Distribution List. If necessitated by time constraints or other factors, and at the discretion of the NextBridge Project Director, this formal meeting requirement may be eliminated in favor of emailed decision from the NextBridge Project Director to the Team Lead and Distribution List.
- 4. Decision to Approve, Deny, or Modify Budget Variance Authorization Request Memorandum: During its meeting with the Team Lead, the Distribution List shall evaluate the BVAR Memorandum and provide a recommendation to approve, deny, or modify the BVAR Memorandum. Any request for a Business Unit to increase its budget by 10% or \$100,000, whichever is smaller, will be brought before the Board of Directors for a decision. After the Board of Directors renders its decision, the Team Lead and Distribution List will be notified of the decision.
- 5. Location of Approved Budget Variance Authorization Memorandum: All BVAR Memorandums (including any emailed decision, the minutes from Team Lead's meeting with Distribution List, and any Board of Directors decision regarding a BVAR Memorandum) shall be kept in the Budget Variance Authorization Request Memorandum folder on the NextBridge SharePoint.

1



- <u>Team Leads and Distribution List</u>: The Team Leads and Distribution List are included in Exhibit A. Any questions regarding additional persons who should be added to the Distribution List should be directed to **Exhibit Construction** NextBridge Project Director, and **Exhibit Construction** Business Management.
- 7. <u>Budget Variance Authorization Memorandum Template</u>: The BVAR Memorandum template is attached as Exhibit B. Please direct any questions regarding the BVAR Memorandum Template to BUAR Memorandum Template.



Exhibit A

Team Leads:

Team Leaders

Distribution List:

Distribution List	Required to Review Budget Variance Authorization Request Memorandum
Director	х
, Managing Attorney	x
NextBridge Senior Project Manager	x
Business Management	x
, Manager Project Controls & Scheduling	х
Senior Director Engineering & Construction	x
, Director of Development Business Management	x



Exhibit **B**

INTERNAL MEMOR	ANDUM - October 2019 FORM
To:	
Prepared By:	
Date:	
Project Name:	
Budget Variance Amount:	
Managing Attorney:	

BUDGET VARIANCE AUTHORIZATION REQUEST MEMORANDUM

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1. Executive Summary

1.1. Background

Provide background information regarding the need for the Budget Variance Authorization Request.

1.2. Conclusion

Provide recommendation to address the issue that may require an increase to the East-West Tie budget.

- 1.3. Options
 - Do Nothing
 - Proposed Activity
 - Any Other Option
- 1.4. Recommendation

2. Financial Analysis

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