

July 22, 2014

VIA COURIER, EMAIL, RESS

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

Dear Ms. Walli:

**Re: EB-2011-0140: East-West Tie Line Designation
Monthly Report - July 22, 2014**

Enclosed for filing is the monthly report for Upper Canada Transmission, Inc. ("NextBridge"), a copy of which was filed through RESS earlier today.

Yours truly,

(Original Signed)

Tania Persad
Senior Legal Counsel, Enbridge Gas Distribution Inc.

ONTARIO ENERGY BOARD

IN THE MATTER OF sections 70 and 78 of the *Ontario Energy Board Act, 1998*;

AND IN THE MATTER OF a Board-initiated proceeding to designate an electricity transmitter to undertake development work for a new electricity transmission line between Northeast and Northwest Ontario: the East-West Tie Line.

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

Monthly Report

July 22, 2014

1. By the *Decision and Order* dated August 7, 2013 (Decision), the Ontario Energy Board (OEB or Board) decided that the designated transmitter for the development phase of the proposed East-West Tie Line (EWT Project) is NextBridge Infrastructure (NextBridge).
2. In accordance with Ordering Paragraph 2 (page 42) of the Decision and the Board's September 26, 2013 *Decision and Order regarding Reporting by Designated Transmitter*, NextBridge provides this monthly report. This report reflects the financial status of development work on the EWT Project through June 30, 2014. Other aspects of this report are current as of the close of business on the last business day prior to the filing date.
3. This report is organized as follows:
 - (a) A summary report on overall EWT Project progress.
 - (b) A cost summary providing details for each cost category included in NextBridge's Board approved development cost budget of: i) actual costs

to date; ii) percentage of budgeted costs spent to date; iii) updated budget forecast (if applicable); and iv) forecast variance. Reasons for any forecast variance and associated mitigating measures for negative forecast variances are also provided.

- (c) A summary of the status of NextBridge's Board approved development milestones, indicating those that are complete and the status (i.e. on schedule, ahead of schedule or delay/potential delay) of those in progress. If any delay or potential delay in achievement of any of the milestones has been identified, the reasons for the delay, the magnitude and impact of the delay on the broader development schedule and cost, and mitigating steps that have been or will be taken, are reviewed.
- (d) A summary of risks and issues that have arisen during development work, including discussion of potential impact of any such developments on schedule, cost or scope, and discussion of options for mitigating or eliminating the risk or issue. This section also provides an update on any previously identified risks or issues.

Overall Project Progress

- 4. Overall during this period, work towards all milestones continued to progress and the EWT Project is on schedule.
- 5. In respect of engineering work:
 - (a) obtained senior management approval of the structure configuration proposal in accordance with milestone 7;
 - (b) detailed engineering of the lattice tower structures in support of the fabrication, assembly and testing of the prototypes is in progress and materials are being procured for testing prototype towers, which is scheduled to commence in September; and
 - (c) surveying and LIDAR data processing is currently underway and mobilization of the geotechnical testing crews pending Ministry of Natural Resources (MNR) approval for access to Crown Lands.
- 6. In respect of route selection, land/ROW acquisition and community/municipal consultation activities, discussions with landowners, permitting agencies and other stakeholders have continued.
 - (a) Activities within the community/municipal consultation area included:

- (i) continued planning and reserving of facilities for Round Two public open houses tentatively scheduled for later this summer in the EWT Project area and continuation of notification material preparation;
 - (ii) attended a special meeting with Dorion Township Council in relation to a Deputation to Township Council dated May 6, 2014 by a Dorion area citizens group proposing alternative routes for consideration, and Dorion Township Council resolution dated May 20, 2014 seeking to prohibit new transmission infrastructure within the Township;
 - (iii) responding to inquiries arising from stakeholder meetings to gather socio-economic information and dates related to the EWT Project area; and
 - (iv) updating the EWT Project database in preparation for upcoming mail-outs.
- (b) Activities in respect of route selection and land/ROW acquisition included:
- (i) continued engagement and outreach with landowners potentially directly affected along the Reference Route and alternate routes still under consideration;
 - (ii) continued consultation with landowners (including corporate landowners, government ministries and local municipalities), Crown disposition and claim holders in support of obtaining consent for geotechnical studies and environmental assessment activity;
 - (iii) continued response to landowner queries as received, including queries in connection with the Terms of Reference (ToR), current routes under consideration, the Land Acquisition program, and the EWT Project in general;
 - (iv) finalization of the forms of agreements to be utilized for land acquisition purposes; and
 - (v) initiation of development of two additional line lists to reflect new alternatives being considered as a result of the alternatives assessment being undertaken as part of the environmental assessment (EA) process. New parcel fabric and landowner information related to the new alternatives identified is being completed as required.

7. In respect of Aboriginal engagement, consultation and participation, activities included:
- (a) ongoing engagement activities with the 18 identified First Nation and Métis communities;
 - (b) meeting with the Missanabie Cree on June 23rd to further discuss traditional land uses and mapping;
 - (c) discussion with Long Lake #58 First Nation on the status of its traditional knowledge report, communication protocol and potential dates for community meetings over the course of the summer;
 - (d) execution of capacity funding agreements with six communities, and continued negotiations related to three more. Activities funded to-date relate to supporting the EA process and the delegated Duty to Consult, including participation in community meetings to provide EWT Project information and gather traditional land use data;
 - (e) working with the Bankushwada group of First Nations (Fort William, Red Rock Indian Band, Pays Plat, Pic Moberg, Ojibways of Pic River and Michipicoten) on mutually sharing traditional use data that will be integral to the EA and consultation efforts; and
 - (f) continued discussions on ways Aboriginal communities can commercially participate in the EWT Project, as outlined in the Aboriginal Participation Plan (Schedule C) submitted as part of the EWT Project January 22, 2014 Monthly Report.
8. In respect of environmental assessment activities, work included:
- (a) continued consultation with the Ministry of Environment and MNR in support of the EA;
 - (b) submission of detailed geotechnical drilling work plan to the MNR and responses to queries in connection with this work plan;
 - (c) continued environmental site assessment field staff data collection in the EWT Project area;
 - (d) continued identification and evaluation of alternatives to the Reference Route;
 - (e) ongoing meetings with numerous interested parties in connection with the collection of socioeconomic data for the EA; and

- (f) meetings with mining claim holders and forestry management plan holders.
9. Additional general updates for the reporting period include:
- (a) Based on direction received from Parks Canada in February 2014 that the EWT Project would not be permitted through Pukaskwa National Park (the Park) and that Parks Canada would not issue data collection permits to study as part of the EA routing the EWT Project through the Park, NextBridge has not been able to pursue further active evaluation of the routing through the Park. On July 9, 2014, Minister Bob Chiarelli, Minister of Energy (Ontario) wrote to the Honourable Leona Aglukkaq, Minister of the Environment (Canada) seeking the opportunity for NextBridge to evaluate and assess through Ontario's EA process, the environmental impacts and identify mitigation measures for traversing the Park. Attached at Schedule A is a copy of this letter. While government deliberates on the acceptability of routing through the Park, NextBridge continues to actively study and evaluate routing alternatives around the Park pending government direction (see milestone 13 for further information).
 - (b) NextBridge is currently completing a mid-term financial review of its costs to-date and forecast to January 28, 2015. NextBridge expects to complete this exercise and update any forecasts, as required, in its next Monthly Report.

Cost Summary

10. Table 1, below, details for each cost category included in NextBridge's Board approved development cost budget: i) actual costs to date; ii) percentage of budgeted costs spent to date; iii) updated budget forecast (if applicable); and iv) forecast variance.

Table 1: Budgeted Costs Status

Cost Category	PROJECT TO DATE		TOTAL PROJECT ESTIMATE			
	Actual ¹	% of total budget	Forecast	Budget ²	Variance \$	Variance %
Budgeted						
Engineering, Design and Procurement Activity	\$2,536,496	24.0%	\$10,553,292	\$10,553,292	-	0%
Permitting and Licensing	13,807	29.2%	47,320	47,320	-	0%
Environmental and Regulatory Approvals	1,797,984	50.0%	3,592,680	3,592,680	-	0%
Land Rights (Acquisitions or options)	1,110,313	55.8%	1,746,000	1,991,000	245,000 ³	12.3%
First Nation and Métis Consultation	787,051	45.7%	1,724,000	1,724,000	-	0%
Other Consultation	538,371	108.5%	741,001	496,001	(245,000) ³	(49.4)%
Regulatory (legal support, rate case and LTC filings)	586,478	59.5%	985,000	985,000	-	0%
Interconnection Studies	48,408	27.0%	179,000	179,000	-	0%
Project Management	1,039,830	80.0%	1,300,000	1,300,000	-	0%
Contingency (Engineering, Design and Procurement)	-	0.0%	1,529,708	1,529,708	-	0%
Total	\$8,458,738	37.8%	\$22,398,001	\$22,398,001	-	0%

¹ "Actual" refers to actual costs plus estimated accruals.

² This total refers to the Development Phase budgeted amount as approved by the Board in file EB-2011-0140 Phase 2 Decision and Order dated August 7, 2013.

³ As reported in the EWT Project March 21, 2014 Monthly Report.

11. Table 2, below, details costs to date not included in NextBridge’s Board approved development cost budget. This table includes two categories of cost expressly excluded from the development cost budget filed by NextBridge: First Nation and Métis land acquisition costs and First Nation and Métis participation costs (see NextBridge Response to Interrogatory 26 to all applicants, attachment 1).
12. The “Other” category on Table 2 records unbudgeted costs that are, to date, for the most part related to the Notice of Appeal filed by Pic River in the Ontario Divisional Court in respect of the Decision.

Table 2: Unbudgeted Costs

Cost Category	Current month project to date Actual ⁴	Prior month project to date Actual ⁴
Not Budgeted		
First Nation and Métis Land Acquisition	\$ 7,332	\$ 7,332
First Nation and Métis Participation	791,598	766,218
Other Costs Not included in Budgeted Categories	224,755	224,862
Carrying Cost	18,908	12,881
Taxes and Duties	-	-
Total Not Budgeted	\$ 1,042,593	\$ 1,011,293

Development Milestone Summary

13. Table 3, below, provides a summary of the status of NextBridge’s Board approved development milestones, indicating those that are complete and the status of those in progress (i.e. on schedule, ahead of schedule or delay/potential delay).
14. For each of the Board approved milestones, Table 3 provides:

⁴ “Actual” refers to actual costs plus estimated accruals.

- (a) The Board approved milestone date.
 - (b) The status of those milestones due within 3 months of the reporting date.
 - (c) A “revised forecast date” if applicable, indicating NextBridge’s current forecast of the date for completion of the relevant milestone if the current forecast differs from the Board approved date.
15. NextBridge has focused, for the purposes of this reporting, on the status of those milestones due within 3 months of the reporting date in order to highlight the development activities in respect of which efforts are primarily focused, and which are of most immediate relevance to project progress and status.
16. NextBridge does review its development schedule on a monthly basis, in conjunction with preparation of these monthly reports, and should an issue or risk regarding a milestone that is scheduled beyond 3 months from the reporting date be identified, NextBridge will nonetheless report on that issue or risk, and include an appropriate status indication and revised forecast date in Table 3.

Table 3: Milestone Progress and Status

Engineering Milestones

	Milestone	Board Approved Date	Status	Revised Forecast Date
1	Initiate engineering	13 Sep 2013	Completed	
2	Sign contract for engineering	31 Oct 2013	Completed	
3	Finalize design criteria for conductor and structure	31 Jan 2014	Completed	
4	Complete conductor optimization study	7 Mar 2014	Completed	
5	File request for a System Impact Assessment (SIA) with the IESO	12 Mar 2014	Completed	
6	Status report on progress toward finalization of structure choice	31 Mar 2014	Completed	
7	Obtain senior management approval of the structure configuration proposal	1 July 2014	Completed	
8	Complete aerial surveys	14 Oct 2014	On schedule	
9	Receive final SIA from the IESO	21 Nov 2014		

Route Selection, Land/ROW Acquisition and Community/Municipal Consultation Milestones

	Milestone	Board Approved Date	Status	Revised Forecast Date
10	Prepare list of landowners along the ROW	10 Oct 2013	Completed	
11	Complete design of Landowner, Community and Municipal Consultation Plan	1 Nov 2013	Completed	
12	Commence negotiations or discussions with all landowners and permitting agencies	25 Nov 2013	Completed	May 30, 2014 as per EWT Project April 22, 2014 Monthly Report
13	Finalize proposed route and obtain senior management approval	1 Jul 2014	Completed	

Aboriginal Engagement, Consultation and Participation Milestones

	Milestone	Board Approved Date	Status	Revised Forecast Date
14	Send introductory correspondence to aboriginal communities	30 Aug 2013	Completed	
15	Initial meeting with Ministry of Energy regarding the MOU for delegation	15 Sept 2013	Completed	
16	Complete initial/introductory contact with all aboriginal communities identified by the Ministry of Energy	30 Sept 2013	Completed	
17	Sign MOU with Ministry of Energy regarding the delegation	5 Nov 2013	Completed	
18	Complete design of First Nations and Métis Participation Plan with community input	2 Jan 2014	Completed	
19	Complete design of First Nations and Métis Consultation Plan with community input	2 Jan 2014	Completed	

Environmental Assessment (Provincial) Milestones

	Milestone	Board Approved Date	Status	Revised Forecast Date
20	Consult with environmental agencies (Ministry of Environment, Ministry of Natural Resources, Parks Canada and Ontario Parks)	10 Oct 2013	Completed	
21	Issue notice of draft Terms of Reference (ToR) available for review	16 Jan 2014	Completed	
22	File Environmental Assessment ToR	28 Feb 2014	Completed	
23	Initiate wildlife, aquatics and early season vegetation assessments	1 May 2014	Completed	May 20, 2014 - as per EWT Project April 22, 2014 Monthly Report
24	Approval of Environmental Assessment ToR	3 Jul 2014	Pending response from Ministry of Environment as per paragraph 18	Unknown
25	Complete Environmental Assessment Consultation Report	27 Jan 2015		
26	Submit Environmental Assessment to	27 Jan 2015		

	Ministry of Environment		
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Leave to Construct Milestone

	Milestone	Board Approved Date	Status	Revised Forecast Date
27	Submit Leave to Construct (LTC) application	28 Jan 2015		

17. In respect of the milestones achieved during this reporting period:

(a) **Milestone 7: Obtain senior management approval of the structure configuration proposal.** Attached at Schedule B is a Structure Selection Report dated June 2014 approved by senior management that describes the family of structures designed and selected for use in the EWT Project, and outlines the steps taken to validate the use of such structures in relation to the EWT Project to-date.

(b) **Milestone 13: Finalize proposed route and obtain senior management approval.** Attached at Schedule C is a Route Status Report dated July 1, 2014 approved by senior management that summarizes the current status of NextBridge’s assessment of the proposed route alternatives and next steps required to finalize a route for the EWT Project. The report indicates that data collection and analysis in relation to the Reference Route is ongoing and numerous alternatives and route refinements have been identified both as a result of internal investigation and through interactions with external parties, and are currently under various stages of review. NextBridge will make final routing decisions once it has gathered further information from the EA and consultation processes.

18. With respect to milestone 24 (Approval of Environmental Assessment ToR), NextBridge submitted its ToR on February 28, 2014 and as a result of comments received, submitted a follow-up amendment on May 22, 2014. NextBridge understands that the ToR is still under review pending a final decision from the Minister of Environment. At this time, NextBridge does not know when this decision will be made. NextBridge has commenced EA work in anticipation of receiving the decision within a reasonable time and, at this time, does not expect the overall project schedule to be negatively impacted.

19. In respect of the outstanding milestones, activity is currently on track to achieve the relevant milestones in accordance with the Board approved target dates.

Issues/Risks/Mitigation Summary

20. This section of NextBridge's monthly report provides a summary of risks and issues that have arisen during development work, including discussion on potential impact of any such developments on schedule, cost or scope, and of options for mitigating or eliminating the risk or issue.
21. There are no risks or issues that have arisen during development work to date in respect of which NextBridge has identified an impact on its development schedule, cost or scope of work.

Attachments to NextBridge Monthly Report

Schedule A

**Letter from Minister Bob Chiarelli, Ministry of Energy (Ontario) to The
Honourable Leona Aglukkaq, Minister of the Environment (Canada)
dated July 9, 2014**

Ministry of Energy

Office of the Minister

4th Floor, Hearst Block
900 Bay Street
Toronto ON M7A 2E1
Tel.: 416-327-6758
Fax: 416-327-6754

Ministère de l'Énergie

Bureau du ministre

4^e étage, édifice Hearst
900, rue Bay
Toronto ON M7A 2E1
Tél. : 416 327-6758
Télééc. : 416 327-6754



JUL - 9 2014

MC-2014-1591

The Honourable Leona Aglukkaq
Minister of the Environment
Member of Parliament for Nunavut (Nunavut)
Les Terrasses de la Chaudière
10 Wellington Street, 28th Floor
Gatineau QC K1A 0H3

Dear Minister:

I am writing to you regarding a matter of significant importance to Ontario's electricity reliability and the electricity ratepayers of Ontario.

Electricity transmission infrastructure is an economic enabler, providing a stable supply of electricity to meet the demands of industry and households. Enhancing the transmission network to ensure reliability is vital; Ontario's 2013 Long-Term Energy Plan identified several priority transmission projects required to maintain a reliable, long-term supply of electricity, including an expanded East-West Tie transmission line that would run between Thunder Bay and Wawa (Appendix 1). NextBridge Infrastructure (NextBridge) is currently undertaking development work for the project.

NextBridge must complete the required development work, which includes preparation and approval of an individual Ontario Environmental Assessment (EA), and bring an application to the Ontario Energy Board (OEB) for approval to construct the line. A public hearing will be held to determine, ultimately, if the project is in the public interest and whether it will be built.

NextBridge has proposed a route which is within the existing transmission line corridor but requiring some widening, including a section that traverses Pukaskwa National Park (the Park). The existing line pre-dates the formation of the Park.

NextBridge approached Parks Canada about a modest widening of the existing corridor and submitted a project description for consideration. In February 2014, Parks Canada advised NextBridge that it was not prepared to accommodate the proposed routing through the Park, citing environmental and aesthetic implications, in addition to legal and policy challenges.

A widened existing corridor provides transmission facilities in a co-ordinated, efficient and cost-effective manner and generally results in fewer environmental and socio-economic impacts and allows for efficiencies such as the use of existing access roads and bridges for construction and maintenance.

.../cont'd

Bypassing the Park with a new corridor would unreasonably increase the line's length; require significant green-field construction and new environmental disturbances; and present significant incremental costs to Ontario electricity ratepayers. Ontario seeks an opportunity for NextBridge to evaluate and assess through Ontario's EA process, the environmental impacts and identify mitigation measures for routes that traverse or bypass the Park. Ontario feels that the route that minimizes and avoids, where possible and practical, adverse environmental and socio-economic effects should be selected based on these assessments, and that a route through the Park is the least intrusive option.

I would appreciate the opportunity to discuss this matter with you at your earliest convenience, and explore opportunities to allow for the most efficient, environmentally sound, and cost-effective routing for the transmission line. Given the importance of this issue, I have also asked my Chief of Staff, Andrew Teliszewsky, to reach out to your chief of staff to facilitate quick and productive discussion on this matter.

Sincerely,

A handwritten signature in black ink, consisting of a large, sweeping loop followed by a long horizontal line extending to the right.

Bob Chiarelli
Minister

Enclosure

Appendix 1

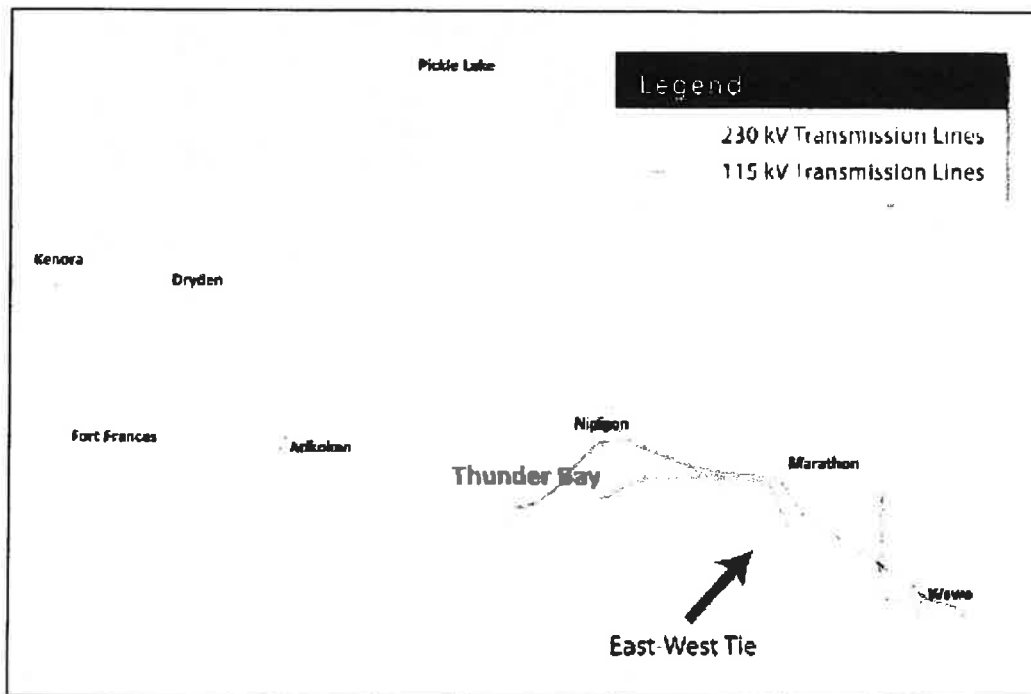
East-West Tie Transmission Expansion Project

Project Need: The proposed project will improve the reliability of supply in the Northwest by reducing transmission constraints and allowing a greater two-way flow of electricity between the Northwest and the rest of Ontario.

Physical Description and Proposed Route: The proposed project is a new, approximately 400 km double-circuit 230 kilovolt(kV) transmission line running between Wawa in Northeast Ontario, and Thunder Bay in the Northwest, with a connection at Marathon (Map 1).

The proposed route parallels an existing transmission line and traverses approximately 35 km of Pukaskwa National Park adjacent to the existing transmission line which predates the park (Map 2).

Map 1: East West Tie Route



Source: Ontario Power Authority, "Long Term Electricity Outlook for the Northwest and Context for the East-West Tie Expansion," June 2011

Map 2: Pukaskwa National Park – Approximate Transmission Line Routing



Source: Modified from Pukaskwa National Park – Park Management Plan, 1995

Attachments to NextBridge Monthly Report

Schedule B

Milestone 7: Obtain senior management approval of the structure configuration proposal – proof of completion

Structure Selection Report dated June 2014 approved by senior management



Structure Selection Report



NextBridge Infrastructure LP
Ontario East-West Tie Project

Revision 3
June 2014



This report describes the family of structures designed and selected for use in the Ontario East-West Tie Transmission Line Project (the EWT Project), and outlines the steps taken to validate the use of such structures in relation to the Project to date.

The EWT Project team proposes to use a steel-lattice double circuit guyed Y tangent structure for a large proportion of Project structures. The concept of the double circuit guyed Y tangent structure was initially adopted in 2013 in an effort to better fit the physical constraints presented by the EWT Project. By transferring some of the load into guy wires, a guyed Y tangent structure requires less material than a self-supporting tangent structure to resist the same loading. The reduced weight equates to fewer helicopter lifts during the construction phase of a project. The EWT Project team expects use of a double circuit guyed Y tangent structure to save the EWT Project in both labour and material costs as compared to the exclusive use of traditional self-supporting lattice tower structures.

The EWT Project will utilize a family of structures including both guyed Y tangent and self-supporting tangent structures. The most effective combination of structure types within the family of structures will be used in the final design. The guyed Y tangent structure continues to demonstrate structural integrity and suitability in this double circuit application. It is anticipated that the guyed Y tangent will make up the majority of structures utilized.

A large part of the line traverses the Canadian Shield which indicates, based on typical geology of the shield, that a high percentage of the structures will be placed in shallow rock. Drilling large foundations in rock can be difficult, time consuming, and costly. The configuration of the double circuit guyed Y tangent structure eliminates the necessity of the soil to resist overturning and allows for smaller bearing type foundations and guy anchors to be used. The efficiency of using this type of foundation along with guy anchors is also expected to save the EWT Project in both labour and material costs as compared to the exclusive use of traditional self-supporting lattice tower structures.

Over the course of the last several months The EWT Project team, has been working towards finalization of a suite of transmission structure designs for the EWT Project. Issued for Design (IFD) load drawings, design criteria for conductor and structure selection, and a steel tower specification were issued. As part of the load development analysis, a conductor optimization study was performed and a conductor selected (milestone #3). Wind and Ice results from a weather study confirm that the load cases are appropriate for the geographical project area, meet or exceed the requirements as set forth by the Ontario Energy Board Minimum Technical Requirements¹, and meet or exceed the CSA 22.3 No. 60826:10 Design of Overhead Transmission Lines². The detailed tower design for the family of structures including the guyed Y tangent structures, the self-supporting tangent structures, deadend structures, and all angle structures is based on these deliverables.

The EWT Project team is in the process of finalizing the design of the full family of structures based on the tower design criteria derived from the OEB technical requirements and the CSA code. This is a lengthy process which includes the detailing of the connections and creation of the fabrication drawings in support of building the prototype towers to be tested. Tower optimization takes several

iterations of the design to establish the most efficient design and combination of structure types. A full scale test, currently scheduled for fall 2014, will be conducted on an actual structure of each tower type to validate the design.

In parallel, the Project team continues to develop transmission line modeling based on refinements to the alignment, LIDAR data, structure configuration, land acquisition, environmental constraints, and project design criteria. Once the route alignment has been finalized, a better understanding of the situations where specific tower types should be used will be achieved and applied to further optimize the designs and address failure containment. Through structure spotting, the Project team will identify the most efficient range of heights and frequency of each tower type in the design.

The EWT Project team has also developed alternative guying arrangements for a special failure containment double circuit guyed Y tangent structure that can withstand broken wire loads. The tower development effort to date continues to support the selection of the guyed Y tangent for double circuit application, based on the weather loads and terrain associated with the EWT Project.

Below is a table representing the various structure types proposed for use in the design of the EWT Project. Each of the ten structures listed has a specific application, and the relevant proportion of each structure to be used will be determined based on the final alignment.

ONTARIO EAST-WEST TIE FAMILY OF STRUCTURES				
Designation	Description	Type	Application	Current Estimated % of Total Structures to be Used
GTL	Guyed Y Tangent, Light	Tangent	The guyed Y light tangent is the typical structure on the transmission line and will be used whenever possible.	85%
GTH	Guyed Y Tangent, Heavy		The guyed Y heavy tangent structure will be used in place of the guyed Y light tangent in long spans or larger angle applications.	
GTF	Guyed Y Tangent, Failure Containment (FC)		The failure containment guyed Y tangent structure is used periodically throughout the line design to protect against cascading structure failure.	
STL	Self-Supporting Tangent, Light		The self-supporting light tangent structure will typically be used in place of a guyed Y light tangent structure where a smaller footprint is required.	
STH	Self-Supporting Tangent, Heavy		The self-supporting heavy tangent structure will typically be used in place of a guyed Y heavy tangent structure where a smaller footprint is required.	
STF	Self-Supporting Tangent, FC		The self-supporting failure containment tangent structure will typically be used in place of a guyed Y failure containment tangent structure where a smaller footprint is required.	
SRF	Self-Supporting Small Angle		Angle	

SSX	Self-Supporting Strain, 0-30°	The self-supporting strain structure will be used in applications where a larger line angle is required but a full tension deadend is not necessary.
SDX.30	Self-Supporting Deadend, 0-30°	The 0° to 30° self-supporting deadend structure will be used to deadend the line in applications up to a 30° line angle.
SDX.90	Self-Supporting Deadend, 30-90°	The 30° to 90° self-supporting deadend structure will be used to deadend the line in applications 30° up to 90° line angle.

For the load cases analyzed, the current design of the guyed Y light tangent structures are approximately 20% lighter than the self-supporting light tangent structures. The structure weights will not be finalized until the detailed engineering designs for all structures are complete.

The engineering and procurement efforts remain supportive of the double circuit guyed Y tangent structures being technically feasible and more economical than the self-supporting tangent structures. However, the total cost difference for the EWT Project between using the guyed Y tangent structure, where appropriate, versus the exclusive use of the self-supporting tangents cannot yet be determined as the alignment has not yet been finalized to support the structure spotting or assignments of each tower, and the associated cost of foundations, construction access, assembly, and erection are dependent on other designs efforts not yet completed.

In Summary, the EWT Project team has selected a specific family of structures for use in completing the EWT Project as described above, and continues to propose the use of the guyed Y tangent configuration as the primary tangent structure on the EWT Project.

REFERENCES

- ¹ Minimum Technical Requirements for the Reference Option of the E-W Tie Line (including Appendix A),
Ontario Energy Board, November 9, 2011.
- ² Design Criteria of Overhead Transmission Lines, CSA 22.3 No. 60826:10, Canadian Standards
Association, December 2010.

Attachments to NextBridge Monthly Report

Schedule C

Milestone 13: Finalize proposed route and obtain senior management approval – proof of completion

Route Status Report dated July 1, 2014 approved by senior management




Route Status Report



NextBridge Infrastructure LP
Ontario East-West Tie Project

July 1, 2014



This route status report illustrates current thinking related to routing of the East-West Tie transmission line project (the “EWT Project”) between Thunder Bay and Wawa, based on information that is currently available. As new information becomes available through continued Aboriginal consultation, environmental study, identification and assessment of alternatives, land investigation, detailed design and stakeholder engagement, further refinements will be made to the routes under assessment and a final route will be selected for submission as part of the environmental assessment (the “EA”).

In this final route status report to the Ontario Energy Board (the “Board” or the “OEB”) prior to the expected submission of the EA in January, NextBridge exhibits the methodology used to determine the proposed route.

The report is structured as follows:

1. Background information;
2. Alternative route identification criteria;
3. Identification of alternative routes;
4. Methodology;
5. Pukaskwa National Park;
6. Current route status; and
7. Next steps to final route.

Background Information

A Reference Route was put forward after a review of potential routes based on environmental, socio-economic, technical and cost criteria, during the 2012/2013 competitive bid process conducted by the Board to designate the party that would develop the EWT Project. Alternative routes were also developed for the Reference Route to avoid specific federal lands, including two First Nation Reserves and Pukaskwa National Park (the “Park”). The Reference Route generally parallels the existing East-West Tie (an existing 230 kV transmission line) that connects the Lakehead (Shuniah), Marathon and Wawa Transformer Stations (TS).

Potential routes were primarily identified through desktop reviews of publically available information, with a focus on paralleling existing linear infrastructure as per Ontario Provincial Policy Statement (2014) (the “Policy Statement”) before and initially after Designation¹. Additional routes have been identified and added to the analysis through a number of mechanisms, including additional desktop research from access to a wider variety of databases, field data collection activities by the EWT Project team and information provided through interactions with EWT Project stakeholders over the 11 months since the Designation.

¹ Decision and Order dated August 7, 2013 (the “Designation”).

Route Identification Criteria

Three main types of criteria are being used to identify alternative routes. These are:

1. environmental;
2. socio-economic; and
3. technical (including cost which is derived from technical constraints).

Environmental

General criteria includes avoiding features such as wetlands, waterbodies, wildlife and species at risk and associated habitat, and protected areas.

Socio-economic

Includes criteria that avoids features such as residences, Aboriginal and traditional land uses, cultural heritage and historical resources, as well as commercial and industrial developments and other infrastructure.

Technical and Cost

Includes considerations such as the overall length of the project, number of infrastructure corridors crossed (which can cause security issues), angles or corners along the transmission line which require larger and more specialized tower structures as well as larger permanent land area, and avoiding rugged topography which may be challenging to access.

Attached in Table 1 are general routing considerations that are considered when making decisions regarding route identification and selection of alternative routes.

Identification of Alternative Routes

NextBridge is currently conducting an alternative route assessment of potential route alternatives and refinements examined by NextBridge, comparing routes to criteria and indicators identified in the Terms of Reference (ToR). The objective is to identify a technically feasible route with the least physical, socio-economic, and natural potential negative impacts.

The area is characterized by rugged topography, numerous waterbodies, wetlands, watercourses and a lack of development outside of a small number of cities, towns and hamlets along the Lake Superior coastline. These factors make siting a transmission line difficult. Existing linear facilities in the area generally parallel each other in the same general locations that have better access and generally less rugged topography closer to Lake Superior.

Methodology

Alternative routes and route refinements are being identified using the following means:

1. identifying linear infrastructure in the EWT Project area between Shuniah, Marathon and Wawa;
2. desktop data;
3. orthophotographs;
4. information from Aboriginal communities regarding traditional land uses
5. proposals by interested parties; and
6. data provided by government agencies and other existing literature.

Once alternative routes and route refinements are identified, the analysis involves comparing the alternative routes to the Reference Route using the criteria and indicators in Table 2 (attached) to determine which route will likely have the least potential for adverse physical, socio-economic, natural and technical effects, while meeting the requirements established by NextBridge and regulatory bodies. The criteria noted in Table 2 have been selected based on the type of environment located in the area, and the indicators were selected and refined based primarily on available data and feedback from stakeholders and interested parties.

Alternate routes and route refinements may be eliminated through the comparison to criteria and indicators in the alternatives assessment. Alternative routes or route refinements that may be considered plausible alternatives to the Reference Route will require further assessment.

Pukaskwa National Park

NextBridge submitted an EWT Project description to Parks Canada on December 12, 2013. On February 11, 2014, Parks Canada responded by letter (as enclosed) that NextBridge's request to include Pukaskwa Park in the EA was denied and that Parks Canada did not support the EWT Project traversing the Park. In addition, NextBridge met with Parks Canada in Ottawa on March 17, 2014. Since proceeding with the EA through the Park was not possible at the time, NextBridge made the decision to focus its development work on the alternate routes and further work through the Park was ceased.

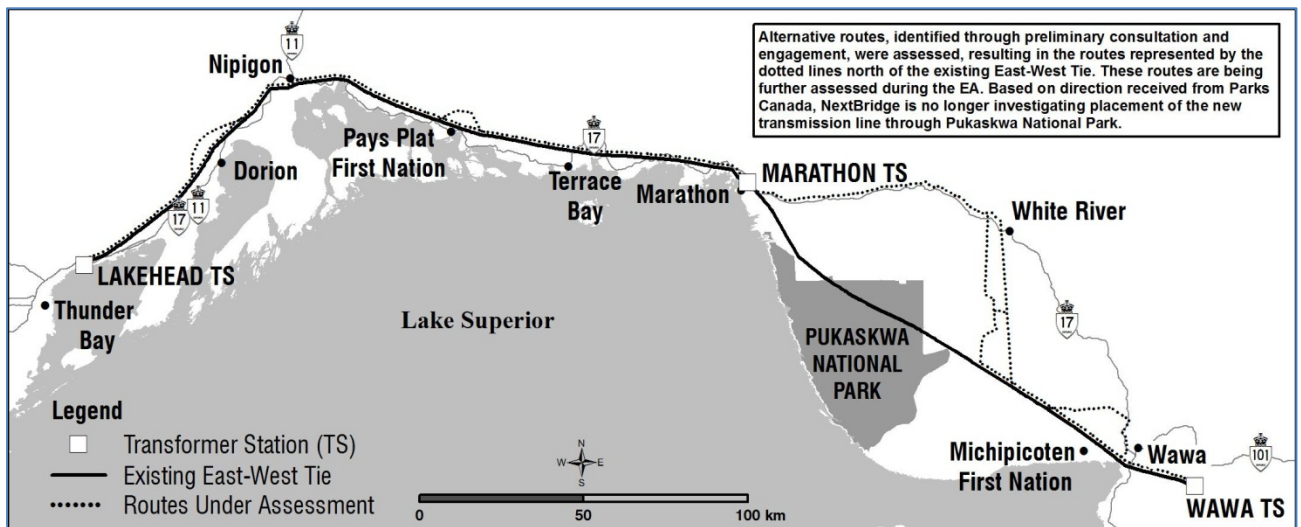
Current Route Status

NextBridge is not in a position to establish a final route at this stage of the development. The EA has identified numerous alternatives and route refinements, both as a result of internal investigation and through interactions with external parties, and are currently under various stages of review.

As noted above, NextBridge has initiated an alternatives assessment to identify routing alternatives. The alternatives assessment, through a comparison of criteria and indicators, will assist in selecting the final route. The evaluation criteria will be confirmed during the course of the EA process and consultation with interested parties and Aboriginal communities that may include additions or deletions based on new information that is obtained in relation to the areas of the route being evaluated.

Data collection and analysis on the Reference Route and remaining alternative routes and route refinements continues through the EA process and data collection. At this stage of the development and EA process, in the absence of extensive field data as well as input from Aboriginal groups, other stakeholders and interested parties, specific alternatives and refinements under consideration, no routing decisions have been made, with one exception – based on direction received from Parks Canada, NextBridge is no longer investigating placement of the new transmission line through the Park.

Below is the EWT Project current map that presents the existing East-West Tie line (solid line) and NextBridge’s routes under assessment (dotted lines).



NextBridge senior management is supportive of the ongoing steps and methodology regarding the routes under assessment and approved these routes as of July 1, 2014 subject to the identification of additional alternatives through the balance of the EA process and the Leave to Construct (LTC) application process.

Next Steps

NextBridge is reviewing an alternatives assessment and continues to assess the Reference Route, remaining alternative routes and route refinements in further detail through the EA data collection and LTC development, including natural

environment and socioeconomic data collection, consultation, Aboriginal engagement and engineering design.

NextBridge is also working, through public engagement activity and Aboriginal consultation, to identify additional potential routes that will be analyzed as part of the EA. Local route refinements will be considered to avoid environmental, socio-economic and technical constraints encountered along the Reference Route based on field studies and feedback received through public, agency, and Aboriginal consultation.²

NextBridge notes that additional alternatives may be identified and subsequently analyzed at any time until the filing of the EA, and commits to reasonably completing that analysis as alternatives arise. The route will remain as "proposed" until the filing of the EA and LTC, at which point it will become the recommended route.

² This approach is consistent with the previously approved Bruce to Milton Transmission Line Project.

**Table 1:
General Routing Considerations**

Factor	Rule
Natural	Avoid significant natural features (i.e., ANSIs, Species at Risk, environmentally sensitive areas, wetlands and waterbodies) and adhere to appropriate setback requirements.
	Minimize watercourse crossings and reduce impacts to woodlands, wetlands, fish and wildlife habitats, and natural areas. Avoid areas with unsafe or hazardous slopes.
Socio-Economic	Maximize the distance from cultural heritage resources (archaeological, built heritage and cultural heritage landscapes).
	Minimize incompatibility with existing sensitive land uses (i.e., First Nation reserves, residences, agricultural lands, forest management areas, trap lines, mining claims).
	Minimize the use of private properties (i.e., use of existing ROW is favoured to minimize disruption to property owners).
	Minimize potential disturbance to adjacent residences (and traditional lands if applicable) which may be affected by construction activities.
	Minimize potential disturbance to adjacent commercial and industrial properties which may be affected by construction activities.
	Minimize potential disturbance to adjacent institutional and recreational properties which may be affected by construction activities.
	Maximize conformity with local land use policy.
	Minimize disruption to local traffic.
Technical	Find the shortest and most direct routes.
	Minimize rail and road crossings.
	Avoid areas with an insufficient amount of construction work space or uneven terrain.
	Minimize the number of overhead electric transmission line crossings.
	Select the best topographical/terrain areas for the route (i.e., dry, flat and stable ground).

Table 2: Criteria and Indicators

Factor	Criteria	Indicator
Physical	Soil	Area of agricultural fields crossed within the proposed ROW (ha)
	Private Property	Number of properties and other sensitive land uses potentially affected within the proposed ROW
Number of potential dwelling displacements		
Number of potential property buyouts required within the proposed ROW		
Socio-Economic	Land Use	Number of settlement areas crossed by the proposed ROW
		Number of Forest Management Units within the proposed ROW
		Area of Conservation Areas within the proposed ROW (ha)
		Area of Conservation Reserves within the proposed ROW (ha)
		Area of Provincial Parks within the proposed ROW (ha)
		Area of National Parks within the proposed ROW (ha)
		Area of mines within the proposed ROW (ha)
		Area of mining claims within the proposed ROW (ha)
		Number of mining claims crossed by the proposed ROW
		Area of aggregate pits within the proposed ROW (ha)
		Area of high potential for aggregate resources within the proposed ROW (ha)
		Area of land designated for commercial and industrial purposes within the proposed ROW (non-mining) (ha)
		Community Services
	Number of schools and educational institutions crossed by the proposed ROW	
	Number of community centres crossed by the ROW	
	Number of waste management facilities crossed by ROW	
	Tourism and Recreation	Number of trails crossed by the proposed ROW (Ontario Trails Network)
		Area of campgrounds crossed by the existing ROW (ha)
		Number of outpost camps crossed by the ROW
	Aesthetics	Number of golf courses crossed by the proposed ROW
Number of scenic viewpoints within the proposed ROW		
Non-Aboriginal Archaeology, Cultural Heritage, Traditional Land and Resource Use	Length of ROW with archaeological potential (km)	
	Number of archaeological sites within the proposed ROW	
	Number of known cemeteries crossed by the proposed ROW	
Aboriginal Archaeology, Cultural Heritage, Traditional Land	Area of traditional land uses/harvest areas identified within the proposed ROW (ha)	
	Length of ROW with archaeological potential (km)	
	Number of archaeological sites within the proposed ROW	
	Area of First Nation reserves within the proposed ROW (ha)	
	Area of traditional land use/harvest areas identified within the proposed ROW (ha)	
	Area of traditional burial grounds within the proposed ROW (ha)	

Factor	Criteria	Indicator
	and Resource Use	
	Way of Life	Métis mobility within the identified study area
		Types of teaching/ transmission programs, services and practices within the identified study area.
		Spiritual connection to areas within the identified study area.
	Harvesting	Type of harvesting activities exercised within the identified study area.
		Identification of key cultural species harvested.
Identification of conditions required for continued harvest.		
Natural Environment	Areas of Natural and Scientific Interest	Area of mapped Provincially Significant Areas of Natural and Scientific Interest (Earth Science and Life Science) within the proposed ROW (ha)
		Area of mapped Candidate Areas of Natural and Scientific Interest (Earth Science and Life Science) within the proposed ROW (ha)
	Wetlands	Area of mapped Provincially Significant Wetlands within the proposed ROW (ha)
		Area of mapped previously evaluated non-provincially significant wetlands within the proposed ROW (ha)
		Area of mapped unevaluated wetlands within the proposed ROW (ha)
	Waterbodies and Watercourses	Number of mapped watercourses crossed by the proposed ROW (ha)
		Area of mapped waterbodies (not including watercourses) crossed by the proposed ROW (ha)
	Forest Resources	Area of previously logged lands within the proposed ROW (ha)
		Area of seed collection lands within the proposed ROW (ha)
	Wildlife Habitat	Area of mapped potential significant wildlife habitat within the proposed ROW (ha)
		Number of mapped nesting sites within the proposed ROW
	Species at Risk	Area of mapped Woodland Caribou continuous habitat within the proposed ROW
Area of mapped Woodland Caribou discontinuous habitat within the proposed ROW		
Technical	Community Infrastructure	Number of roads crossed
		Number of rail lines crossed
		Number of pipelines crossed
		Number of local airports crossed
	Constructability	Overall length of proposed ROW
		Area of hazard (unstable) land crossed by the proposed ROW (ha)
		Number of transmission line corners required
		Number of transmission line crossovers required
		Distance of existing access roads available
		Distance of new access roads required
		Favourable terrain (i.e., poor, moderate, good)
Sufficient work space (i.e., poor, moderate, good)		



Parks Canada Parcs
Canada Canada



33 Court Street S., Suite 105
Thunder Bay, Ontario
P7B 2W6

February 11, 2014

Ms. Carrie Wiklund
Senior Environmental Analyst
LP Environment - Projects (Canada)
Enbridge Pipelines Inc.
10130 103rd Street
Edmonton, AB T5J 3N9

RE: Proposed NextBridge Infrastructure East-West Transmission Project

Dear Ms. Wiklund,

Thank you for providing Parks Canada with additional information of the project proposal to route the east-west tie transmission line through Pukaskwa National Park.

Parks Canada has reviewed the proposed project in the context of the Canada National Parks Act, Parks Canada's Guiding Principles and Operational Policies, and commitments made during public consultations for the Park Management Plan. In addition to the legal and policy challenges identified in this review, it is clear to Parks Canada that your proposal would have considerable environmental and aesthetic implications.

For these reasons, Parks Canada is not prepared at this time to accommodate such a proposal to construct a transmission line through Pukaskwa National Park.

Should you have any further questions regarding our decision please contact me at robin.lessard@pc.gc.ca or by calling (807) 346-2905.

Sincerely,

Robin Lessard
A/ Field Unit Superintendent

Canada