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ONTARIO ENERGY BOARD

IN THE MATTER OF sections 70 and 78 of the *Ontario Energy Board Act, 1998,* S.O. 1998, c. 15, (Schedule B);

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.

EB-2011-0140

EWT LP
Argument in Chief

April 18, 2013

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1 Executive Summary

2 The tables below present an overview of EWT LP's submissions.

Key Criteria	EWT LP
Relevant Knowledge and Experience	Through EWT LP's partners and their related entities, and its technical team, EWT LP has strong local knowledge and extensive experience in technical design, regulatory affairs and stakeholder consultation. This knowledge and experience is directly relevant to the development of electricity transmission projects in northern Ontario and, in particular, to the proposed East-West Tie project (the "**Project**"). EWT LP's knowledge and experience reduces both the Project cost and schedule and, more importantly, helps build the necessary "social licence" for the Project to move to completion.
Schedule and Cost	EWT LP has based its schedule and development costs on a plan comprising more than 300 discrete tasks and a comprehensive review of potential development risks. EWT LP's approach to technical design, system studies, the environmental assessment, land acquisition and consultation provides additional flexibility to respond to new risks. EWT LP's methodical and detailed approach will help prevent both schedule delays and cost overruns, and also provides the Board a prudent and realistic budget for EWT LP's development activities.
Technical Design	In addition to the reference option, EWT LP has considered three additional alternatives. One alternative is the use of cross-rope suspension ("**CRS**") structures, which are new to Ontario but which have been successfully used in similar terrain and conditions in northern Quebec since the 1970's. A CRS alternative could reduce total costs by $116 million, with an accompanying improvement in structural integrity and therefore electrical reliability. EWT LP has set out in detail the methodology and decision criteria it will use to determine the most cost-effective and viable technical design given the needs, terrain, conditions, environment, land availability and constructability.
Consultation	EWT LP's development plan is founded on the need to acquire a "social license" to develop, construct and operate the Project. This fundamental tenant runs through every aspect of the development plan. As has been seen recently elsewhere, projects lacking a valid social licence experience repeated delays, cost overruns and in many instances have to be abandoned. EWT LP has provided a detailed plan for how it intends to consult with the public, with agencies and with Aboriginal communities both to ensure proper and meaningful stakeholder engagement in the Project and to mitigate permitting risk.
Routing & Land Acquisition	Employing its extensive local knowledge, EWT LP has assessed the potential route in segments and has considered a number of alternatives in each, including the use of existing corridors in the more densely populated areas around Thunder Bay. The final route will incorporate the results of the environmental assessment and input from stakeholders. EWT LP plans to implement a fair and principled land acquisition plan that will adopt extensive consultation and incentive mechanisms as a means to promote timely and voluntary land assembly requirements.

Key Criteria	EWT LP
Aboriginal Participation	EWT LP's partner Bamkushwada LP ("**BLP**") is comprised of the six First Nation Communities most directly affected by the Project. BLP will contribute extensive local knowledge and relationships, assistance in consultation, and has a vested interest in the success of the Project. This fact, coupled with additional plans to provide economic support opportunities to other First Nation and Métis communities, demonstrates that EWT LP has established participation that is in the best interest of the Project.

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Applicant	Summary of Key Shortcomings of the Other Applicants' Proposed Development Plans
RES	• RES's technical design fails (i) to reflect the physical attributes of its preferred H-frame structure and the impact those attributes have on the foundations and associated costs; (ii) to properly characterize the technical aspects of its selected ACSS conductor; (iii) to appreciate the cascade failure risk of the preferred design and the need to mitigate that risk; and (iv) to make the fundamental connection between the nature of RES's preferred structures and the geological characteristics of the land on which the structures will be placed. • Although RES's partner, MidAmerican, has U.S. development experience, this experience is not directly relevant to development in the Project area, given the regulatory differences between the U.S. and Ontario, and the unique approach to stakeholder consultation that is necessary in northern Ontario. • RES has the second longest overall schedule to in-service. • RES's application is predicated on the Board accepting a fixed-price scheme with incentives for achieving certain construction cost targets. RES's incentive approach is to RES's advantage but not the ratepayers'.
UCT	• UCT's development schedule is aggressive and will be difficult to achieve. For example, the schedule fails to account for the seasonality of certain environmental studies and assumes only two rounds of public consultation will be required. This significantly increases the risk of project delay and cost overruns during project development. • UCT's recommendation of a double circuit Y-structure is unproven and technically problematic. UCT filed no evidence of any operational experience with this design. • Like RES, UCT proposes an incentive scheme that is a departure from rate-making principles and unfair to ratepayers. • UCT has limited relevant experience developing electricity transmission in Ontario and other relevant areas of Canada, yet UCT has not supplemented that experience with qualified and experienced consultants.

Applicant	Summary of Key Shortcomings of the Other Applicants' Proposed Development Plans
AOLP	• AOLP has proposed a risky development schedule that is not likely achievable, particularly because it has not identified and developed sufficient mitigation measures to address key development risks. AOLP identified only seven generic construction and development risks in total. • AOLP intends to develop the project with minimal stakeholder input. AOLP's plans to consult with the public and Aboriginal communities are inadequate, and its consultation budget is one quarter that of other applicants. • AOLP has not provided a comprehensive land acquisition strategy as part of its development plan. • AOLP's decision to self-sole source development and construction to its owner, SNC-Lavalin, is inconsistent with the Board's Affiliate Relationship Code.
I/TC	• I/TC's original development budget is approximately double the estimate of most other applicants, yet I/TC provided very little information to justify either prudency of this budget or its value to ratepayers. Rather, in its interrogatory responses, I/TC attempted to amend its application to restate its budget. • Although Iccon has significant experience constructing transmission lines in South America and Africa, neither Iccon nor TransCanada have demonstrated transmission development experience relevant to the Project area. • I/TC's decision to self-source construction to Iccon's affiliate Isolux is potentially inconsistent with the Board's Affiliate Relationship Code. • It is questionable whether the joint I/TC proposal is eligible for designation, given that the joint application is in respect of an entity that is yet to be created and licensed.
CNP	• CNP did not demonstrate that it has sufficient relevant experience to develop the Project. • CNP provided very little evidence regarding how it would develop the Project if designated. • CNP's overall schedule to in-service is two years longer than the shortest schedule proposed by EWT LP.

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I. Introduction

These are the submissions of EWT LP made in respect of the Ontario Energy Board's (the "**Board**") proceeding EB-2011-0140 to designate a licensed transmitter to develop the East-West Tie Line (the "**Project**").

EWT LP

EWT LP was purposely formed to bring together three partners: the six First Nation communities most directly affected by the development of the Project, through their partnership in Bamkushwada LP ("**BLP**");[1] Great Lakes Power Transmission EWT LP ("**GLPT-EWT**");[2] and Hydro One Inc. ("**Hydro One**").[3] Post-designation, the partners of EWT LP and their applicable partner related entities will act as one and employ their collective knowledge and expertise to develop the Project.

Board objectives

The Board's objectives, expressed both in the statute and in the Board's orders, are the lens through which the Board must assess each designation application and select a designated transmitter.

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1 BLP is a newly formed limited partnership comprised of six limited partners: (1) Red Rock Indian Band, (2) Pays Plat First Nation, (3) Ojibways of the Pic River First Nation, (4) Pic Mobert First Nation, (5) Michipicoten First Nation and (6) Fort William First Nation (together, the "**Participating First Nations**"). The communities of the Participating First Nations are all located within 40 km of the existing East-West Tie line, which lies entirely within their traditional territories and also crosses two of the Participating First Nations' reserves. The Project will be in the vicinity of the existing East-West Tie line, and as a result the Participating First Nations will be directly affected by the Project.

2 GLPT-EWT is a partnership of Brookfield Infrastructure Holdings (Canada) Inc. ("**BIH**") and Great Lakes Power Transmission Inc. ("**GLPT**"), both of which are the partners of the licensed transmitter Great Lakes Power Transmission LP ("**GLPTLP**") and are indirectly controlled by Brookfield Infrastructure Partners LP ("**Brookfield Infrastructure**"). GLPT-EWT is part of the Brookfield Infrastructure Power and Utilities Group ("**Brookfield Utilities Group**"). As such, GLPT-EWT will be able to draw on the Brookfield Utilities Group's international expertise and significant capital resources to develop and construct the Project.

3 Hydro One is a holding company that is wholly-owned by the Province of Ontario. Hydro One's largest wholly-owned subsidiary is Hydro One Networks Inc. ("**HONI**"). HONI owns and is in the business of planning, constructing, operating and maintaining transmission and distribution networks across Ontario. HONI's transmission and distribution businesses are regulated by the Board (ET-2003-0035 and ED-2003-0043).

Key among these are the objectives set out for the Board in the *Ontario Energy Board Act, 1998*, particularly, (i) protecting the interests of consumers with respect to prices and the adequacy, reliability and quality of electricity service; and (ii) promoting economic efficiency and cost effectiveness in the generation, transmission, distribution, sale and demand management of electricity.[4]

The Board articulated the purposes of the designation process in its Phase 1 Decision and Order: "The Board's primary objective in this proceeding is to select the most qualified transmission company to develop, and to bring a leave to construct application for, the East-West Tie line."[5] Consistent with its statutory objectives, the Board established for this proceeding the core objective of providing benefit to ratepayers through economic efficiency.[6] The Board clarifies this core objective in its Transmission Project Development Planning policy report:

> "Within the context of transmission investment policy, economic efficiency can be understood to mean achieving the expansion of the transmission system in a cost effective and timely manner….."[7]

Therefore, in selecting the most qualified transmitter to develop and to bring a leave to construct application for the Project, the Board must evaluate which development plan will be most cost effective and timely.

From the Board's and ratepayers' perspectives, a cost-effective and timely development plan is one that not only proposes a reasonable development budget,[8] but also expresses how the transmitter will manage a complex project and control costs.[9]

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4 *Ontario Energy Board Act, 1998*, SO 1998, c 15, Sch B, ss. 1(1)1 and 2.

5 Ontario Energy Board, Phase 1 Decision and Order (July 12, 2012), p. 3.

6 Ontario Energy Board, Phase 1 Decision and Order (July 12, 2012), p. 5.

7 Ontario Energy Board, EB-2010-0059, Board Policy: Framework for Transmission Project Development Plans (August 26, 2010), <http://www.ontarioenergyboard.ca/OEB/_Documents/EB-2010-0059/Framework_Transmission_Project_Dev_Plans_20100826.pdf>, p. 3.

8 Ontario Energy Board, Phase 1 Decision and Order (July 12, 2012), p. 17.

9 Ontario Energy Board, Phase 1 Decision and Order (July 12, 2012), p. 12.

Based on these objectives, the Board established filing requirements with which to evaluate designation applications. In effect, to satisfy the Board's objectives, a development plan must fully (i) establish cost estimates that are reasonable and a schedule that is reliable; (ii) enable costs to be effectively managed; (iii) provide the most appropriate and achievable technical design and, where possible, an innovative design given the geography, system need and stakeholder considerations; and (iv) establish a plan to obtain the "social license" to develop the Project through consultation with the public, government agencies and First Nation and Métis communities. The applicant with the plan that best meets these criteria will most likely bring the most cost-effective and timely leave to construct application to the benefit of ratepayers.

Ultimately, "applicants should be compared on the basis of applications as filed."[10] To do so, the Board must consider each application as filed and in its entirety. If an application is predicated upon invalid assumptions, and is in part unacceptable or unworkable, the Board cannot ignore, waive or remedy those parts of the application but instead must deny that application. To do otherwise would be comparable to amending the application, and such a result would not reflect the intent of the applicant in the application as originally filed.

EWT LP best satisfies the Board's objectives

Within these parameters, EWT LP has prepared a development plan that satisfies the Board's criteria and objectives. Drawing on its partners' extensive and relevant experience, EWT LP's development plan presents: (i) a detailed task based approach to establish a project schedule and costs that are reasonable, reliable and controllable; (ii) a clear choice of technical alternatives and a clear approach to establish a workable and cost effective design; and (iii) detailed Aboriginal and Public Consultation plans, together with Aboriginal participation, designed to help EWT LP achieve the "social license" to develop, construct and operate the Project.

As noted above, as part of economic efficiency, cost control is an important objective for the Board. An important aspect of cost control is the ability to manage and mitigate risks that could

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[10] Ontario Energy Board, EB-2011-0140, Procedural Order No. 5 (January 8, 2013), p. 2.

cause an applicant to exceed its development budget. Applicants must understand project risks and mitigate those risks to ensure that final development costs are reasonable. In this regard, the lowest development budget does not necessarily translate into the most reasonable cost, since "cutting corners" by failing to identify and mitigate project risks may lower the development budget but elevate the risk that an applicant will be unable to control its costs. A balance must be struck. EWT LP's approach strikes the correct balance by providing a cost effective plan at reasonable cost based on a reliable and timely schedule. EWT LP's development plan is built around mitigating risk and the management of costs. All aspects of the development plan are directed to this result. It is the thread that binds the development plan together. For example:

- Relevant Knowledge and Experience - Through EWT LP's partners and their related entities, and its technical team, EWT LP has strong local knowledge and extensive experience in technical design, regulatory affairs and stakeholder consultation. This knowledge and experience is directly relevant to the development of electricity transmission projects in northern Ontario and, in particular, to the Project. EWT LP's knowledge and experience reduces both the Project cost and schedule and, more importantly, helps build the necessary "social licence" for the Project to move to completion.

- Schedule and Cost - EWT LP has based its schedule and development costs on a plan comprising more than 300 discrete tasks and a comprehensive review of potential development risks. EWT LP's approach to technical design, system studies, the environmental assessment, land acquisition and consultation provides additional flexibility to respond to new risks. EWT LP's methodical and detailed approach will help prevent both schedule delays and cost overruns, and also provides the Board a prudent and realistic budget for EWT LP's development activities.

- Technical Design - In addition to the reference option, EWT LP has considered three additional alternatives. One alternative is the use of cross-rope suspension ("**CRS**") structures, which are new to Ontario but which have been successfully used in similar terrain and conditions in northern Quebec since the 1970's. A CRS alternative could reduce total costs by $116 million, with an accompanying improvement in structural integrity and therefore electrical reliability. EWT LP has set out in detail the methodology and decision criteria it will use to determine the most cost-effective and viable technical design given the needs, terrain, conditions, environment, land availability and constructability.

- Consultation - EWT LP's development plan is founded on the need to acquire a "social license" to develop, construct and operate the Project. This fundamental tenant runs through every aspect of the development plan. As has been seen recently elsewhere,

projects lacking a valid social licence experience repeated delays, cost overruns and in many instances have to be abandoned. EWT LP has provided a detailed plan for how it intends to consult with the public, with agencies and with Aboriginal communities both to ensure proper and meaningful stakeholder engagement in the Project and to mitigate permitting risk.

- Routing - Employing its extensive local knowledge, EWT LP has assessed the potential route in segments and has considered a number of alternatives in each, including the use of existing corridors in the more densely populated areas around Thunder Bay. The final route will incorporate the results of the environmental assessment and input from stakeholders. EWT LP plans to implement a fair and principled land acquisition plan that will adopt extensive consultation and incentive mechanisms as a means to promote timely and voluntary land assembly requirements.

- Aboriginal Participation - EWT LP's partner BLP is comprised of the six First Nation Communities most directly affected by the Project. BLP will contribute extensive local knowledge and relationships, assistance in consultation, and has a vested interest in the success of the Project. This fact, coupled with additional plans to provide economic support opportunities to other First Nation and Métis communities, demonstrates that EWT LP has established participation that is in the best interest of the Project.

EWT LP's risk mitigation strategy is in contrast to the approach of other applicants. In an effort to distinguish themselves some applicants, like AltaLink Ontario, L.P. ("**AOLP**") and Upper Canada Transmission, Inc. ("**UCT**"), have adopted aggressive schedules. However, in so doing, they have ignored relevant and material risks and made unrealistic assumptions without any corollary mitigation plans should these assumptions prove non-viable. Because schedule and costs are interrelated, ignoring relevant and material risks will likely lead to delays and cost escalation. Others, such as UCT and RES Canada Transmission LP ("**RES**"), have attempted to be innovative in their technical design but these designs are either ill-conceived or poorly suited for this Project. Some, like RES, require a financial inducement to manage costs or to operate efficiently, while others, like Iccon Transmission, Inc. ("**Iccon**") and TransCanada Power Transmission (Ontario) LP ("**TransCanada**" and, together with Iccon, "**I/TC**") and AOLP, require sole source contracts (without competitive pricing). Many of the applicants have approached the preparation of their designation applications from the perspective of wishing to distinguish their plans in one or two aspects, such as a short schedule or an innovative design, whereas EWT LP has focused on preparing a balanced and comprehensive plan that will be most cost-effective for rate payers.

In the submissions that follow, EWT LP sets out its submissions first with respect to its development plan, followed by its submissions regarding the development plans of each of the other applicants, and a response to Board staff's submissions.

II. EWT LP's Development Plan

As mentioned above, EWT LP's development plan demonstrates, more than that of any other applicant:

- a detailed and reliable project schedule and reasonable costs to help ensure the Project is built on-time and on-budget;
- an innovative and feasible suite of technical design alternatives that will ensure the most cost-effective project is ultimately built; and
- comprehensive Aboriginal and public consultation plans, and a land acquisition strategy, that will ensure EWT LP achieves the social license necessary to develop, construct and operate the Project.

It is important to note that not only does EWT LP's designation application describe what EWT LP will do to develop the Project, it also sets out for the Board exactly how EWT LP is going to do it. For example, EWT LP has produced:

- a detailed Gantt chart that breaks down general development activities into more than 300 discrete tasks;[11]
- detailed project workflow plans both for its regular and accelerated development schedules, which ensure all project tasks are coordinated, all schedule risks are captured and clearly demonstrate to the Board exactly how EWT LP will undertake project development;[12]
- a detailed plan to develop the terms of reference and undertake an environmental assessment;[13]
- a detailed plan for meaningful Aboriginal and public consultation[14] and an extensive list of potential consultees;[15]
- a detailed set of land acquisition compensation principles;[16]

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[11] EWT LP Designation Application, Appendix 7C.
[12] EWT LP Designation Application, Appendices 7A and 7B.
[13] EWT LP Designation Application, Appendix 9A.
[14] EWT LP Designation Application, Appendix 10A.
[15] EWT LP Designation Application, Appendix 9B.

- a detailed engineering methodology for refining the Project design;[17]
- a detailed methodology for refining the Project route;[18]
- a summary of relevant government land use policies that will be taken into consideration when refining the Project route;[19]
- a detailed procurement policy;[20] and
- detailed construction safety policies.[21]

As discussed in greater detail below, EWT LP has satisfied the Board's filing requirements. EWT LP has presented a cost-effective and timely plan for delivering the Project.

A. Relevant Experience and Knowledge

Not all transmission projects face the same challenges. The challenges that arise during project development will depend on the local geographical, social and regulatory environment. Experience and knowledge in developing transmission projects, generally, or in other jurisdictions is not necessarily relevant to developing the Project.

In this regard, EWT LP has demonstrated that it has both the experience and knowledge sufficient to develop a transmission project, and the experience and knowledge specifically relevant to the successful development of this project. This expertise comes from years of developing, constructing and operating major transmission lines in Ontario, including those situated within the Project area. More than any other applicant, EWT LP has:

- meaningful participation arrangements in place with First Nations communities most directly affected;

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[16] EWT LP Designation Application, Appendix 4E.
[17] EWT LP Designation Application, Appendix 6C.
[18] EWT LP Designation Application, Appendix 9D.
[19] EWT LP Designation Application, Appendix 9F.
[20] EWT LP Designation Application, Appendix 4D.
[21] EWT LP Designation Application, Appendix 4F.

- detailed knowledge of the geophysical and environmental conditions of the Project area;
- positive relationships with other local and Aboriginal communities;
- extensive experience working in the regulatory regime governing transmission infrastructure in Ontario; and
- a strong and experienced team of technical advisors.

To complement the experience of its partners and its management team, EWT LP has also assembled a team of experts in consultation, environmental assessment, land acquisition and electrical engineering to assist in its development and design process. As a result, EWT LP has, in its view, prepared the development plan that is best suited for the Project, and will be best able to overcome, in a cost-effective and timely manner, the challenges that will arise during Project development.

EWT has meaningful participation arrangements in place with local First Nations partners

The communities of the Participating First Nations are all located within 40 km of the existing East-West Tie line, which lies entirely within their traditional territories and also crosses two of the Participating First Nations' reserves. Through BLP, the Participating First Nations are equal equity partners in EWT LP.

BLP and the Participating First Nations exercised their commercial choice in deciding to partner with EWT LP. It has taken EWT LP's partners over three years to develop an enduring relationship based on trust, respect and equality and ultimately to negotiate and agree on how the Participating First Nations will participate in EWT LP. A key aspect of this relationship is BLP's equal representation in the governance of EWT LP. BLP is equally represented on the board of EWT LP's general partner and will chair this board on a rotating basis.[22] The Participating First Nations will therefore have a leadership role in the development, construction and operation of the Project. No other applicant has included equal governance representation in its plans for Aboriginal participation.

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[22] EWT LP Designation Application, Exhibit 3, p. 4, lines 18-20.

BLP's participation arrangement is beneficial for the Project. As discussed below, BLP and the Participating First Nations are invaluable sources of local and traditional knowledge; they have been, and will continue to be instrumental in shaping and executing EWT LP's development plans for the Project. Because EWT LP is exposed to the risk of cost disallowance for permitting delays and cost-overruns during development, the Participating First Nations have an incentive to ensure that EWT LP's plans for routing, consultation and environmental review are comprehensive and properly managed. These shared risks will help ensure the Project is developed cost-effectively and in adherence to the Project schedule.

Unlike other applicants that are not willing to share governance control with potential Aboriginal partners, the Participating First Nations, through BLP, will have a real and demonstrable opportunity to shape the Project development work and optimize EWT LP's environmental assessment, consultation and routing processes based on their local expertise. EWT LP has proposed a unique model of Aboriginal participation in energy infrastructure that is entirely consistent with government policy.

No other applicant has demonstrated the positive relationships that EWT LP through its partners has with Aboriginal communities. These positive relationships are built on a foundation of trust, which takes time to develop and is essential for meaningful Aboriginal engagement. Whereas many applicants like UCT propose to enter into a working relationship with First Nations in the Project area immediately after designation, EWT LP can, without delay and immediately following designation, draw on the experience of BLP and the Participating First Nations in conducting the environmental assessment and consultation in the Project area. BLP's early participation in the project planning process and its active engagement in development work, especially environmental assessment and consultation, will significantly lower the risk of Project cost overruns and delays. Other applicants have cited examples of engagement with First Nations communities in other parts of Ontario or Canada, but they cannot assume that they will have a positive relationship with the First Nations communities in the Project area or that trusting and collaborative working relationships will mature overnight.

In addition, EWT LP has proposed other opportunities for Aboriginal participation in the Project outside of equity participation. EWT LP will give priority with respect to employment, training and commercial opportunities to Aboriginal community members and to businesses owned or controlled by an Aboriginal community or its members. EWT LP will match community resources to Project needs and help enhance Aboriginal participation in the Project by, for example, pre-qualifying Aboriginal community businesses and members for the provision of certain goods and/or services; providing feedback on any gaps in qualifications and information on how to remedy those gaps and become more competitive bidders; holding workshops for Aboriginal community businesses or members to develop or enhance their ability to qualify and bid effectively; requiring bidders on major contracts to include plans for Aboriginal content and/or participation; and ensuring Aboriginal businesses and members are kept informed of contracting and employment opportunities during Project construction.[23] All Aboriginal communities will have an opportunity to participate in the Project.

EWT LP has detailed knowledge of the geophysical and environmental conditions of the Project area

EWT LP, through its partners, has extensive knowledge about the geophysical and environmental conditions of the Project area along the northern shores of Lake Superior. This knowledge distinguishes EWT LP from other applicants. It has enabled EWT LP to identify the risks and opportunities associated with the local environment as well as a suite of technical designs that are particularly well suited for the area.

This experience will be drawn from each of EWT LP's partners and their related entities. First, because the Project area is located entirely within the traditional territories of the Participating First Nations, BLP brings to EWT LP intimate knowledge of the local geography, seasonal weather patterns and traditional land use activities in the Project area. In addition, the Ojibways of the Pic River First Nation, Pic Mobert First Nation and Pays Plat First Nation bring extensive experience in developing generation projects and associated transmission infrastructure in the

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[23] See EWT LP Designation Application, Exhibit 3, pp. 7-8.

challenging climate and terrain of the Project area.[24] Furthermore, the Ojibways of the Pic River First Nation and Red Rock Indian Bank bring particular familiarity with the Project area's forests and topography from approximately 30 years of local commercial forestry harvesting and management experience.[25]

BLP's extensive traditional knowledge of the potential environmental impacts of the Project will inform EWT LP's routing and consultation process and result in more efficient, more cost-effective and lower risk Project development. As indicated in EWT LP's designation application, BLP's knowledge will play a particularly important role in focusing the environmental assessment. For example, BLP will assist in identifying important and/or sensitive local flora and fauna species and mapping their distribution, population status, seasonal ranges and movements for the Natural Environment Existing Conditions Report component of the ToR.[26]

Post-designation, EWT LP also has access to the knowledge and experience of Great Lakes Power Transmission LP ("**GLPTLP**"), which has a long and successful presence in this part of Ontario. GLPTLP owns and operates transmission facilities that extend northwards from Sault St. Marie to Wawa, where it shares a common connection point with the existing East-West Tie. This presence has given GLPTLP extensive experience in the local geographic and environmental challenges that may affect the development, construction and operation of transmission facilities in proximity to the Project area. For example, GLPTLP successfully developed the Transmission Reinforcement Project on the eastern shores of Lake Superior, one of the longest electricity transmission lines built in Ontario in recent years. In doing so, it gained a deep and current understanding of key environmental features of the Lake Superior area, such as presence of local endangered species, the seasonal challenges in accessing construction sites, and ways to mitigate the risks that those challenges pose to successful Project development.[27]

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[24] See EWT LP Designation Application, Exhibit 2, pp. 4-5.

[25] EWT LP Designation Application, Exhibit 2, p. 6.

[26] See EWT LP Designation Application, Appendix 9A, pp. 19-21.

[27] See EWT LP Designation Application, Exhibit 2, pp. 7-8.

Through years of right of way and facility maintenance, GLPTLP has also gained extensive experience in the materials and equipment that best withstand the climate, and the engineering and design requirements dictated by the geography. This enables EWT LP – unlike RES, for example – to understand why a steel H-frame is a problematic and expensive tower design given the bedrock in the area, and therefore to propose more feasible technical designs.[28] It also enables EWT LP – unlike AOLP, for example – to understand the seasonal challenges of completing the fieldwork necessary for an environmental assessment and to develop a schedule that does not ignore these risks.

Hydro One's partnership in EWT LP also adds to this experience. Hydro One, through Hydro One Networks Inc. ("**HONI**"), owns and operates approximately 96% of the transmission system in Ontario, one of the largest transmission systems in North America, including the existing East-West Tie and the related transmission stations to which the Project will connect.[29] Post-designation, EWT LP will benefit from HONI's direct experience operating the existing transmission line in the Project area.

EWT LP has extensive experience with the regulatory regime governing transmission infrastructure in Ontario

EWT LP's experience with Ontario's regulatory regime governing transmission project development is superior to that of other applicants. Post-designation, EWT LP will benefit from HONI's experience as a licenced transmitter and as the developer and operator of the Bruce-to-Milton Transmission Reinforcement Project – Ontario's most recent and significant transmission project and one that required the same consultation and environmental assessment processes as will be applicable to the Project. In fact, through HONI's experience with the Bruce-to-Milton project, EWT LP is the only applicant with relevant experience completing an individual environmental assessment for a transmission project in Ontario. EWT LP's team also has

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[28] Wood pole lines, both single pole and H-frames are used extensively in northern Ontario, especially at 115 kV. Wood pole H-frames are typically shorter than steel H-frames due to the limited availability of tall trees. The spans are correspondingly shorter and the issues surrounding foundations are more easily overcome.

[29] See EWT LP Designation Application, Exhibit 2, pp. 9-11.

significant experience satisfying the procedural aspects of the Crown's duty to consult in connection with transmission projects.[30]

In addition, GLPTLP, in developing its Transmission Reinforcement Project, was required to complete many EA studies and to obtain many of the same required permits and approvals. Furthermore, as noted above, the Participating First Nations bring to BLP experience in permitting a number of generation projects in operation or under development in the Project area, including the Umbata Falls Generating Station, the Twin Falls Generating Station, the Gitchi Animki Hydroelectric Project, the Lower Lake Hydroelectric Project, the High Falls Generating Station and the Manitou Falls Generating Station.[31]

Both HONI and GLPTLP are familiar with operating transmission infrastructure. In Appendices 4D, 4E and 4F of its designation application, EWT LP has set out in detail the operating policies and procedures that it will employ in operating the Project in accordance with the Transmission System Code and good utility practice.

The depth of EWT LP's experience and that of its management team is not easily acquired. It comes through years of experience working with regulators in interpreting and applying the regulatory regime to specific project circumstances. EWT LP has the ability to draw on its partners' existing relationships with the regulatory agencies that will govern the Project to ensure that the Project is developed on-time and on-budget. For example, the sum total of RES's regulatory experience in Ontario relates to two wind generation projects with less than 60km of associated private transmission lines.[32]

EWT LP has assembled a strong and experienced team of technical advisors

EWT LP's development team also includes a strong and experienced team of technical advisors for the Project. The four experienced consultants retained for the Project will provide specialized

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30 For example, see EWT LP Designation Application, Exhibit 2, p. 19, lines 19-21.

31 EWT LP Designation Application, Exhibit 2, pp. 4-5.

32 See RES Designation Application, Exhibit E, Tab 5, Schedule 2.

skills, resources and advice to assist EWT LP's development of the Project. Power Engineers Inc. ("**Power Engineers**") has over 35 years of experience as one of the largest specialist transmission and distribution engineering firms in North America, including more than 20 years of project experience in Ontario and across Canada, and will assist EWT LP in engineering design and route selection.[33] AECOM Canada Ltd. ("**AECOM**") has extensive experience completing environmental assessments in Ontario and has worked on more than 27,000 km of transmission line projects worldwide.[34] It will assist EWT LP in co-ordinating and implementing all the consultations, studies, field work, assessments and evaluations required for Project environmental assessment and route selection. Shared Value Solutions ("**SVS**") is experienced in consultation, particularly Aboriginal consultation, and will assist EWT LP by coordinating, scheduling, facilitating and documenting all public engagement activities associated with the Project, including procedural aspects of the Crown's duty to consult with First Nations and Métis communities that the Crown may delegate to EWT LP.[35] Altus Group Inc. ("**Altus**") is an experienced real estate service provider and will assist EWT LP in Project siting, routing and the valuation and acquisition of land and land rights.[36]

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[33] For example, Power Engineers has designed transmission line connections for various Ontario renewable generation projects, including the Greenwich, Talbot, Prince, Erie Shores and Kruger wind projects and the Umbata Falls hydroelectric project. Power Engineers was also engaged from 1993 to 2009 in the repair of the 287 kV, 88km Rio Tinto Alcan Transmission Line in the coastal mountains of British Columbia, which involved rugged and remote access issues, deep snow, helicopter work and managing poor weather scheduling. See EWT LP Designation Application, Exhibit 4, p. 12, lines 10-15 and Appendix 4C - Power Engineers Experience.

[34] For example, AECOM led the individual environmental assessment for Ontario Highway 407 East Extension, which included five rounds of consultation involving a Regulatory Agency Group, Municipal Technical Advisory Group and Community Advisory Group; multiple public information centres and public/stakeholder workshops; field trips with regulatory agencies; and consultation with First Nations communities. See EWT LP Designation Application, Appendix 4C - AECOM Experience.

[35] For example, SVS led a traditional knowledge and land-use study with the Red Sky Métis Independent Nation in conjunction with an environmental assessment consultation process regarding the Marathon PGM Metals mine. SVS conducted video and participatory GIS (geographic information system) interviews with a broad section of the community and continues to assist the community with peer reviews of permitting and approvals documentation and participation in panel review hearings in connection with the mine. See EWT LP Designation Application, Exhibit 4, p. 18, lines 23-32.

[36] For example, Altus performed land acquisition activities in connection with approximately 350 properties along the approximately 180 km right of way for the Bruce to Milton Transmission Reinforcement Project. Altus provided value benchmarking along the proposed route; prepared pre-expropriation property specific valuations

B. Schedule and Cost

Shortest schedule and lowest cost do not necessarily equate to best plan

EWT LP's development schedule (and, in turn, its cost estimate) is based on a realistic, bottom-up and task-based assessment of the Project. In particular, EWT has:

- proposed the most comprehensive, reliable development schedule;
- identified opportunities for schedule compression and cost savings;
- undertaken the most detailed risk analysis and mitigation planning; and
- presented the most accurate and reasonable cost estimates.

No other applicant has undertaken such a comprehensive approach and thereby provided such reliable Project schedule and cost estimates. As a result, the development plans of all other applicants pose significantly higher risks that the Project will run over-budget and beyond schedule and, ultimately, not achieve the Board's objective of delivering a cost-effective and timely new transmission project with the inherent capability to manage costs.

In project development, a balance must always be struck between minimizing time and expense and ensuring the comprehensiveness of consultation activities, technical studies and the environmental assessment. Schedule and cost are directly interrelated. Changes in schedule are very likely to have a cost impact. The better a developer is able to establish and manage its schedule, the more likely the developer can maintain its cost estimate. Developers that overemphasize low cost solutions or scheduling shortcuts are in reality creating risks that these development activities will not be satisfactorily completed without material cost and schedule overruns. The shortest schedule and the corresponding lower cost do not necessarily equate to the best or most reliable schedule or cost estimate. It is the methodology and the building blocks used to create the schedule and cost estimates that will dictate whether Project risks have been

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and property specific expropriation valuations; and completed more than 200 market value appraisals with regard to injurious affection. See EWT LP Designation Application, Appendix 4C - Altus Experience.

understood and factored into the schedule in a balanced manner to give an on-time and on-budget result.

EWT LP has proposed the most comprehensive, reliable development schedule

EWT LP's development schedule is based on a detailed Gantt chart which breaks down development of the Project into approximately 300 discrete tasks and subtasks.[37] This detail is necessary to ensure that no development tasks are omitted from the schedule, particularly with respect to the critical path environmental assessment process.

EWT LP has developed detailed Project workflow plans both for its regular and accelerated development schedules.[38] These workflow plans ensure that all Project tasks are coordinated and all schedule risks are captured. They also clearly demonstrate exactly how EWT LP will undertake Project development.

Drawing on its extensive experience and knowledge of the Project area, EWT LP has identified innovative ways to expedite the Project development schedule and to reduce Project costs. Based on its analysis, the development phase of the Project, up to the point of filing the application for leave to construct, is expected to take between 23 months and 32 months, depending on the complexity of environmental issues encountered and the level of public support. The ways in which EWT has identified opportunities for schedule compression and cost savings are discussed further below.

EWT LP also estimates that Project construction could be completed within 22 months from the date the construction contract is executed. Assuming designation on August 1, 2013, EWT LP will therefore bring the Project into service in approximately five years. Figure 1 below illustrates EWT LP's schedule compared to other applicants.[39]

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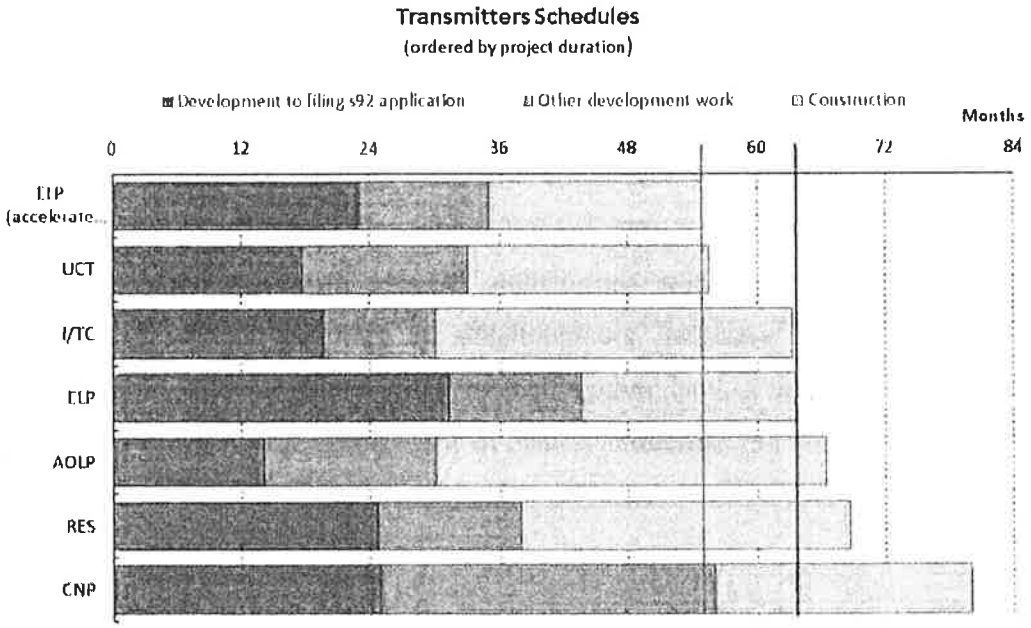
[37] See EWT LP Designation Application, Appendix 7C.

[38] See EWT LP Designation Application, Appendices 7A and 7B.

[39] It should be noted that other applicants will not have the immediate benefit of Aboriginal partners' input into their development plans, and they may experience schedule delays due to the time required to negotiate equity partnerships with Aboriginal communities.

Figure 1 - Transmitters' Schedules[40]



EWT LP has distinguished itself from other applicants in the comprehensiveness and robustness of its Project schedule. Through its task-based approach, EWT LP took great care to ensure that its Project schedule accounted for all of the significant steps in the most critical path aspect of Project development – namely, the individual environmental assessment ("**EA**") that the Project must complete pursuant to Ontario's *Environmental Assessment Act*[41] (the "**EAA**"). There are two main stages of the individual EA process. The first is developing and obtaining approval from the Ministry of the Environment ("**MOE**") of a focused terms of reference for the environmental assessment ("**ToR**"), which addresses the rationale for and alternatives to the proposed Project and provides the "roadmap" for the EA. The second is completing and obtaining the MOE's approval of the EA itself, which will include the assessment of and the development of mitigation measures for the Project's potential impacts.

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[40] ELP (accelerated schedule) assumes the environmental issues will be less complex and less public consultation will be required, as discussed further below.

[41] RSO 1990, Chapter E.18.

Terms of Reference for the Environmental Assessment

The ToR can only be prepared, submitted and approved when sufficient detailed development work including routing has been completed to adequately describe the Project, and after sufficient public consultation has been completed to confirm the range of routing alternatives and satisfy the requirements of the EAA. Transmitters like UCT and AOLP cannot reasonably expect to receive the MOE's approval for a proposed ToR without first considering a range of Project alternatives and performing adequate consultation. Because they have not considered these aspects, their development schedules are unreliable, as discussed further in Sections III-C and III-D below. Moreover, it is much more efficient to complete an EA using ToR that reflect a Project design endorsed by key stakeholders than to forge ahead with a plan based on poorly considered alternatives, only to have stakeholders raise concerns with those alternatives at a later date.

In addition, although the regulations under the EAA state that the government's review and approval of the ToR should take no more than 12 weeks (3 months), they also give the MOE the ability to extend the deadline for completing this review if the Minister believes there is a compelling reason to do so.[42] In contrast, AOLP's schedule expects the MOE to review and approve its ToR within as little as one month of submission,[43] which, as discussed in Section III-C below, makes its schedule and cost estimates highly uncertain.

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[42] EAA, s. 7(3). In reality, the MOE ToR review often requires longer than 12 weeks. For example, the MOE required 8 months to review the ToR for Bruce to Milton, and the Board did not proceed with the oral phase of the Bruce to Milton leave to construct proceeding until the ToR were approved. See MOE, Bruce to Milton Transmission Reinforcement Project - Terms of Reference, <http://www.ene.gov.on.ca/environment/en/industry/assessment_and_approvals/environmental_assessments/projects/STDPROD_082721.html?page=2> ("Date Submitted: August 3, 2007 … Decision Date: April 4, 2008"); and Ontario Energy Board, EB-2007-0050, Decision and Order (September 15, 2008), s. 2.3.4.

[43] AOLP's development schedule allows for a scenario where the ToR are finalized in the 5 months after designation, submitted to the MOE on August 30, 2013 and approved within one month on September 30, 2013. See AOLP Designation Application, Appendix 13.

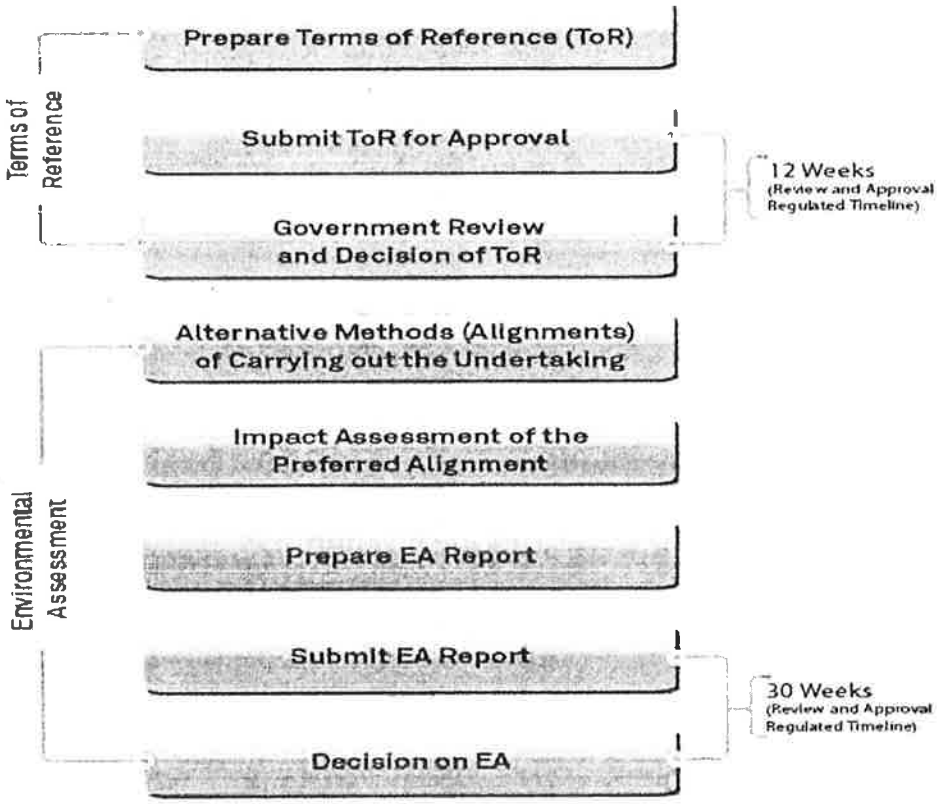
Environmental Assessment

Once the ToR have been approved, the EA itself can commence. This stage will include substantial public consultation and the completion of detailed environmental field studies. The field work has to be undertaken over a period of no shorter than one year (*i.e.*, one complete ecological cycle) so that the environmental impact of the line and its construction can be studied in each of the four seasons. There are also certain seasonal limitations to the studies. For example, certain breeding habitats can only properly be studied in the relevant breeding season, and certain impacts to birds can only be properly assessed during key migration seasons. The completion of the environmental assessment phases therefore typically takes 12-24 months depending on the complexity of the undertaking and degree of public interest.[44]

An overview of the EA process was set out in Figure 7.2 of EWT LP's designation application and is included below for reference as Figure 2.

[44] MOE, Environmental Assessment and Approvals Branch, *Code of Practice - Preparing and Reviewing Environmental Assessments in Ontario* (October 2009), p. 13.

Figure 2 - Overview of EA Process



EWT LP submits that aggressive assumptions about the timeline for completing any of these steps, if proven wrong, can create cascading delays through each subsequent step. Such delays could be at the expense of ratepayers. Applicants such as UCT and AOLP (as discussed further in Sections III-B and III-C) propose accelerated development schedules that make questionable assumptions about the EA process. For example, AOLP has scheduled submittal of its ToR within approximately 2-4 months of designation,[45] despite the fact that according to the MOE Code of Practice for *Preparing and Reviewing ToR for EAs in Ontario* (the "**Code**"), preparing the ToR requires on average 6-9 months.[46] Similarly, UCT assumes that it will be able to prepare

[45] See AOLP Designation Application, Appendix 16.

[46] MOE, Environmental Assessment and Approvals Branch, *Code of Practice - Preparing and Reviewing Terms of Reference for Environmental Assessments in Ontario* (October 2009), p. 8.

a draft environmental assessment report within 4 months[47] and submit its final environmental assessment report in a further two months,[48] but a full year of field studies is required to ensure that a full seasonal cycle is captured under the EA.[49] Given this 6 month timeline and the EA requirements for a full year of field studies, UCT is presumably planning to undertake at least half of its seasonal field studies prior to ToR approval. However, its schedule and costs will likely be impacted if the MOE requires any revisions to the ToR that involve additional field studies. Unlike these applicants, EWT LP has factored into its development schedule assumptions about the EA process consistent with MOE practice guidelines.[50]

EWT LP's approach to critical path EA scheduling reflects its approach to scheduling generally: in essence, EWT LP has prepared its development plan to provide the Board with a balanced view of the cost and time required to develop the Project up to the filing of the leave to construct.

EWT has identified opportunities for schedule compression and cost savings

EWT LP has built into its schedule a possibility of accelerating the development of the Project if certain circumstances occur. It may be possible to accelerate EWT LP's development work by as much as nine months.

The following circumstances could give rise to such an accelerated schedule:

- If the first series of public open houses in January 2014 reveals that the public has fewer concerns about the Project, its design and its location than anticipated, it may be possible to commence environmental field studies two months earlier than scheduled;

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[47] UCT Designation Application, Appendix 15 - NextBridge Project Execution Chart, PROVEA1090, Prepare Draft EA Report (27-Feb-12 to 04-Aug-14).

[48] UCT Designation Application, Appendix 15 - NextBridge Project Execution Chart, PROVEA1120, Prepare and Submit Final EA to MOE (Finish 15-Oct-14).

[49] The Code notes that developing a full environmental assessment usually requires 12-24 months. See MOE, Environmental Assessment and Approvals Branch, *Code of Practice - Preparing and Reviewing Environmental Assessments in Ontario* (October 2009), p. 13.

[50] See EWT LP Designation Application, Exhibit 7, pp. 43-44.

- If the initial environmental field studies reveal that there are fewer credible alternative alignments than expected based on EWT LP's initial routing workshop, then it may be possible to advance the LiDAR survey from early summer 2015 to late summer 2014;

- The environmental field studies could reveal that the proposed design results in fewer significant environmental concerns than anticipated; and

- If the environmental field studies reveal fewer significant environmental concerns than anticipated and if the appropriate mitigation measures for any identified concerns are well established, it may also be possible to eliminate the fourth series of open houses.

Given these opportunities, it may be possible to accelerate EWT LP's development work by as much as approximately eight months.[51] The Project budget would also be reduced by up to $3.2 million.[52]

EWT LP has provided a development schedule range within which the Board can be confident that risks will be managed. In contrast, other competitors have not broken down their Project schedules in such detail and have not reflected the impact certain risks may have to their schedules. For example, AOLP has provided the Board with their best-case development scenario, without giving the Board an indication of how the materialization of certain risks, such as delayed designation or a delay in ToR approval, would impact its schedule. As discussed further in Section III-C below, AOLP has made unduly risky assumptions regarding: (i) its ability to submit its ToR very quickly post-designation, without any significant opportunity for the consultation and technical work necessary to develop a focused ToR; (ii) the timeline within which the MOE will approve the ToR; (iii) the timing of certain seasonal studies that must be completed for the EA; and (iv) the timeline for submitting the EA report for the MOE's approval. AOLP's schedule can only get longer - resulting in higher costs - than that which was presented in its designation application. EWT LP, on the other hand, has the ability to respond to changes and to shorten the schedule and reduce costs for ratepayers.

EWT LP has also considered other opportunities to accelerate development and construction. For example, EWT LP has identified opportunities to:

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[51] EWT LP Designation Application, Exhibit 7, p. 44, lines 16-20.

[52] EWT LP Designation Application, Exhibit 8, p. 6, line 29.

- reduce critical path delays by commencing system impact assessment and customer impact assessment studies upon selection of the preferred route and prior to finalization of line design;

- compress development timelines by integrating the technical design of the line with assessment of its environmental impacts;

- speed the commencement of construction by acquiring land right options prior to receiving the Board's leave to construct; and

- accelerate the entire construction process through the use of CRS transmission structures, which are lighter and easier to assemble than traditional transmission towers.

EWT has undertaken the most detailed risk analysis and mitigation planning

As shown in the table below, EWT LP has also distinguished itself from other designation applicants in the degree to which its development plan considers and develops mitigation measures for potential risks to the project schedule, thereby reducing the risk that unforeseen contingencies will run the Project over budget or extend its schedule. EWT LP has identified risks to costs and schedule during both the development and construction phases and developed corresponding mitigation strategies.[53]

	Development Risks	Development & Construction Risks	Construction Risks	Total All Risks
AOLP	-	7	-	7
CNP	7	-	5	12
ELP	36	-	22	58
I/C	19	-	6	25
RES	11	-	22	33
UCT	3	9	16	28

For example, EWT LP considered the potential risk of receiving Board designation later than anticipated under its development schedule. EWT LP developed a mitigation strategy regarding

[53] See EWT LP Designation Application, Exhibit 7, pp. 17-25 and 33-39; and Exhibit 8, pp. 13-17 and 25-27.

impacts to its environmental assessment studies, but acknowledged that if it is not able to complete summer field studies until summer 2015, this could potentially impact its overall development program by up to six months. In contrast, as discussed further in Sections III-A, III-B and III-C below, RES, UCT and AOLP failed to identify a change in their assumed designation date as a potential Project risk and failed to mitigate against this risk or indicate how it may affect their development schedules.[54] Canadian Niagara Power Inc. ("**CNP**") generally noted "designation is delayed" as a potential schedule risk, but did not develop a mitigation plan or identify effects on its development schedule beyond observing that a "delay of two weeks would cause a minor effect, while a delay of two years would cause a major effect."[55]

As a second example, EWT LP identified that acquiring permits across Crown lands (including national parks, provincial parks, and Ministry of Natural Resources ("**MNR**") buffer zones) was a complex process potentially subject to delay. As a result, EWT LP developed a mitigation strategy of (i) meeting with the MNR and appropriate parks and land use agencies at the earliest opportunity to understand their potential issues and to ensure those issues are properly considered during the environmental assessment and technical design of the line, including its construction; and (ii) actively considering routes that avoid parks and MNR buffer zones, where any additional cost of the alternative route is justified given the balance of lower environmental impact, permitting delays and the need to expropriate land.

In contrast, AOLP did not identify this risk regarding Crown land permits.[56] RES noted that it might encounter "[u]nanticipated problems in securing options for land and access rights" but only developed a general mitigation strategy.[57] It is unclear whether CNP intended to encompass

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[54] For example, UCT did not identify its designation date assumption as one of its three development-specific risks. See UCT Designation Application, Figure 19, p. 103. See also AOLP Designation Application, Table 7.2-1 East-West Tie Line Schedule and Cost Risk Assessment, p. B-103; and RES Designation Application, Exhibit N, Tab 2, Schedule 4, Table N-1.

[55] CNP Designation Application, Exhibit 7, p. 11, lines 10 and 23-24.

[56] AOLP Designation Application, Table 7.2-1 East-West Tie Line Schedule and Cost Risk Assessment Development and Construction, p. B-103.

[57] See RES Designation Application, Exhibit N, Tab 2, Schedule 3, p. 1 ("Early and proactive outright with all private, public and Crown entities from which land rights will be needed. Extensive work already completed by the Applicant in connection with this Application.").

this risk within its general category of "Legal or environmental challenges", but, as discussed further in Section III-E below, it did not identify a mitigation strategy beyond having retained legal counsel.[58]

The failure of other applicants to identify specific key schedule risks indicates a willingness to assume, and pass on to ratepayers, greater risk and exposure to delays and cost overruns. The failure to take such risks into account and to develop specific mitigation strategies creates a risky schedule and one that can be easily derailed if and when those risks transpire. Schedules and budgets that are not based on comprehensive sets of tasks are less prepared to address risks and potential cost overruns because they do not take into account a wide range of risks. Because EWT LP's schedule factors in each key development activity and how it mitigates potential Project risks, it is more comprehensive and therefore likely more reliable than those of other applicants.

EWT LP has proposed the most accurate and reasonable cost estimates

EWT LP has taken the same rigorous approach to developing its development, construction and O&M cost estimates as it has taken in developing its project schedule. Ultimately, EWT LP's goal was to ensure that all significant costs were, to the extent possible, appropriately reflected in these estimates. In addition to being fully transparent, this reduces the risk that unforeseen contingencies will run the Project over-budget. This approach is fundamental to the Board's evaluation of which designation application is the most cost-effective option.

Development Costs

In preparing its development cost estimate, EWT LP began by assigning a cost to each task or group of tasks set out in its Gantt chart at Appendix 7C of EWT LP's application. Based on the total cost of each of these individual actions, EWT LP's estimated budget for completing Project development up to filing an application for leave to construct is in the range of $17.1 million to $22.1 million, depending on whether the scope of development work can be reduced.

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[58] CNP Designation Application, p. 101, lines 9-10.

This estimate is not only rigorous but also competitive with the development estimate of all other applicants. As seen in Figure 3 below, only AOLP proposes a significantly lower development estimate; however, as discussed above and in Section III-C below, this estimate is premised on a development plan that risks running the Project over-budget and extending its schedule.

Moreover, even though EWT LP's development estimate is similar to those proposed by UCT, RES and CNP, none of these applicants' estimates are based on a similarly comprehensive development plan that provides a basis for cost management. For example, as discussed in Section III-E below, CNP has not prepared a detailed schedule of development tasks on which to base its cost estimates;[59] RES has proposed a technical design that is not appropriate for northern Ontario and has not considered foundation costs and foundation installation scheduling in its budget and schedule; and UCT has assumed that it will be able to prepare an environmental assessment in less than 6 months,[60] which is 6-18 months less than Code guidelines.[61] EWT LP can offer a comprehensive development plan for the lowest cost.

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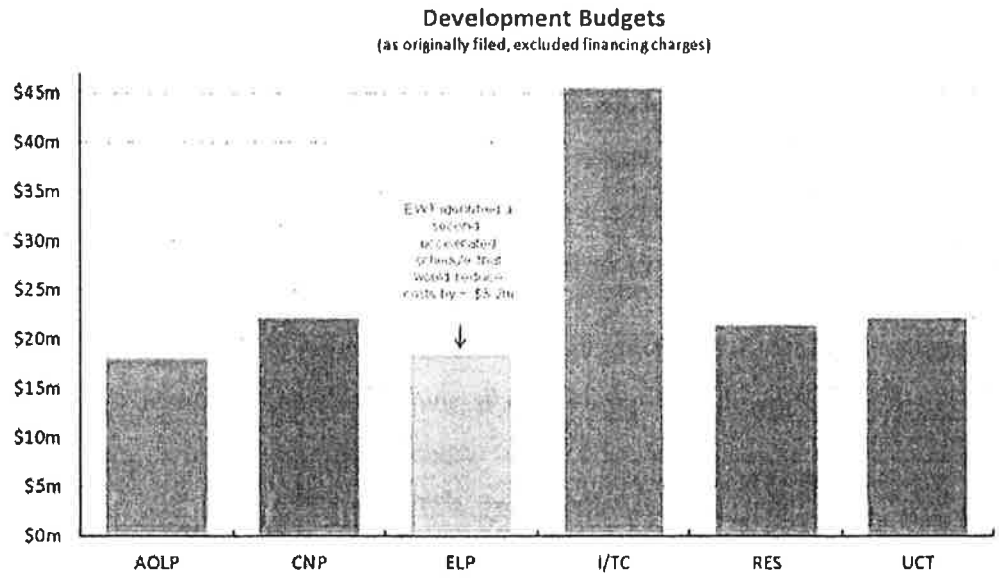
[59] CNP Designation Application, p. 98, lines 25-26.

[60] UCT Designation Application, Appendix 15 - NextBridge Project Execution Chart, PROVEA1090, Prepare Draft EA Report (Start 27-Feb-12) and PROVEA1120, Prepare and Submit Final EA to MOE (Finish 15-Oct-14).

[61] See MOE, Environmental Assessment and Approvals Branch, *Code of Practice - Preparing and Reviewing Environmental Assessments in Ontario* (October 2009), p. 13.

Figure 3 - Development Budgets



Construction Costs

EWT LP's construction cost estimates, although necessarily less precise than its development estimates, were also prepared with a view to being as comprehensive as possible. In this regard, EWT LP did not develop its estimated budget for the construction of the Reference Case in isolation. Rather, it involved its engineering consultant, Power Engineers, in preparing the estimate and then sought input on the estimate from two major North American construction companies, Kiewit Corporation and Valard Construction LP. Based upon the Reference Option, EWT LP estimates the construction costs, including AFUDC, to be in the range of $340 million to $510 million for a double circuit overhead line,[62] which is lower than most and competitive with all other applicants (see Figure 4 below). EWT LP is also the only transmitter to have provided a detailed description of how construction costs were derived, including volumes and unit prices.[63]

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[62] EWT LP Designation Application, Exhibit 8, p. 23.

[63] See EWT LP Designation Application, Appendix 6A, p. 7 and Appendix A, Figures 1 and 2, and Appendix 6D, pp. 18-19 and Appendix B; RES Designation Application, Exhibit P, Tab 1, Schedule 1, p. 3 and Exhibit P, Tab

Furthermore, EWT LP's construction cost estimate for the CRS design is the lowest construction estimate provided by any applicant. As discussed further below, the use of CRS structures could reasonably be expected to reduce construction cost by approximately $116 million (see Figure 4 below).[64] EWT LP is committed to evaluating innovative yet proven technical designs that may yield significant cost savings for ratepayers. In contrast, as discussed in Section III-B below, UCT's proposed guyed structure alternative is not technically feasible and therefore cannot be relied upon to deliver any potential cost savings.

EWT LP remains committed to reducing these construction costs to the extent possible. Unlike AOLP or I/TC, EWT LP has not proposed to sole-source its construction of the Project from related parties. AOLP proposes to subcontract engineering, procurement and construction ("**EPC**") work to its affiliate, SNC Lavalin,[65] and I/TC intends to enter into a fixed fee EPC contract with Iccon's affiliate, Isolux, which will explicitly not be at cost on a transparent basis or without mark-ups for profit.[66] These applicants provide no justification as to how such arrangements would be most cost-effective for ratepayers or explain how they would be compliant with the Board's *Affiliate Relationship Code for Electricity Distributors and Transmitters* (the "**ARC**"). EWT LP believes that ratepayers will benefit from competitive procurement.

Finally, unlike AOLP and RES, EWT LP has not found it necessary to include a bonus scheme for achieving cost savings and avoiding cost over-runs, which ratepayers expect Ontario transmitters to achieve as part of their regulatory obligations. The traditional cost of service model obliges Ontario transmitters to ensure that their capital and operating expenditures are prudent and reasonable.

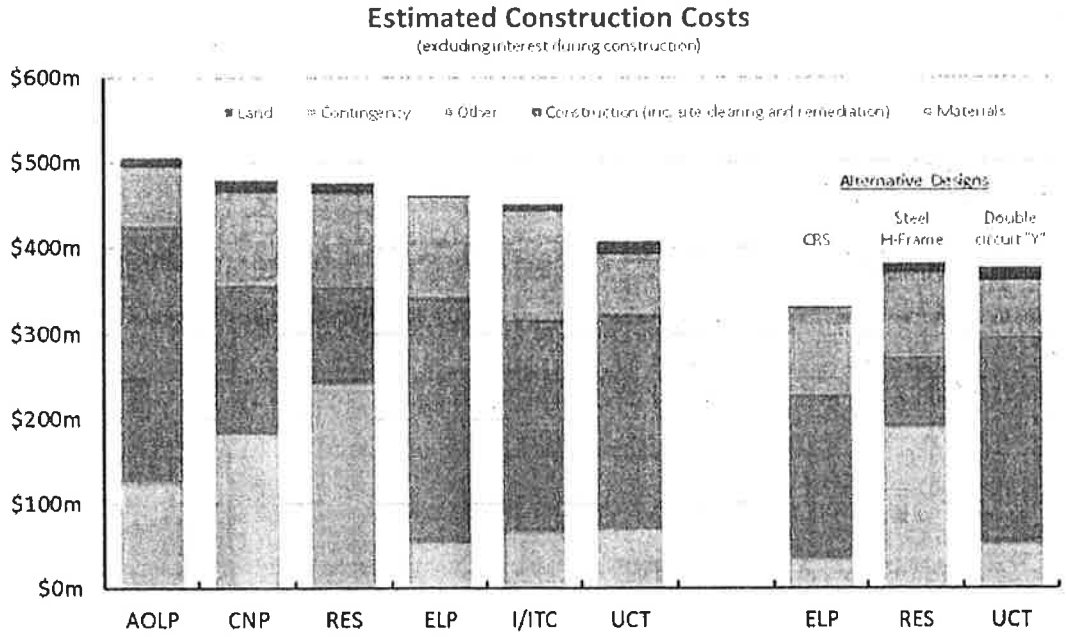
4, Schedule 1, p. 2; UCT Designation Application, p. 118; AOLP Designation Application, p. B-112; I/TC Designation Application, Exhibit 8, p. 6; and CNP Designation Application, pp. 110 and 116 and Appendix X.

64 EWT LP Designation Application, Exhibit 6, p. 18, lines 1-15.

65 AOLP Designation Application, p. B-5.

66 I/TC Designation Application, Exhibit 2, p. 3, lines 24-27.

Figure 4 – Estimated Construction Costs



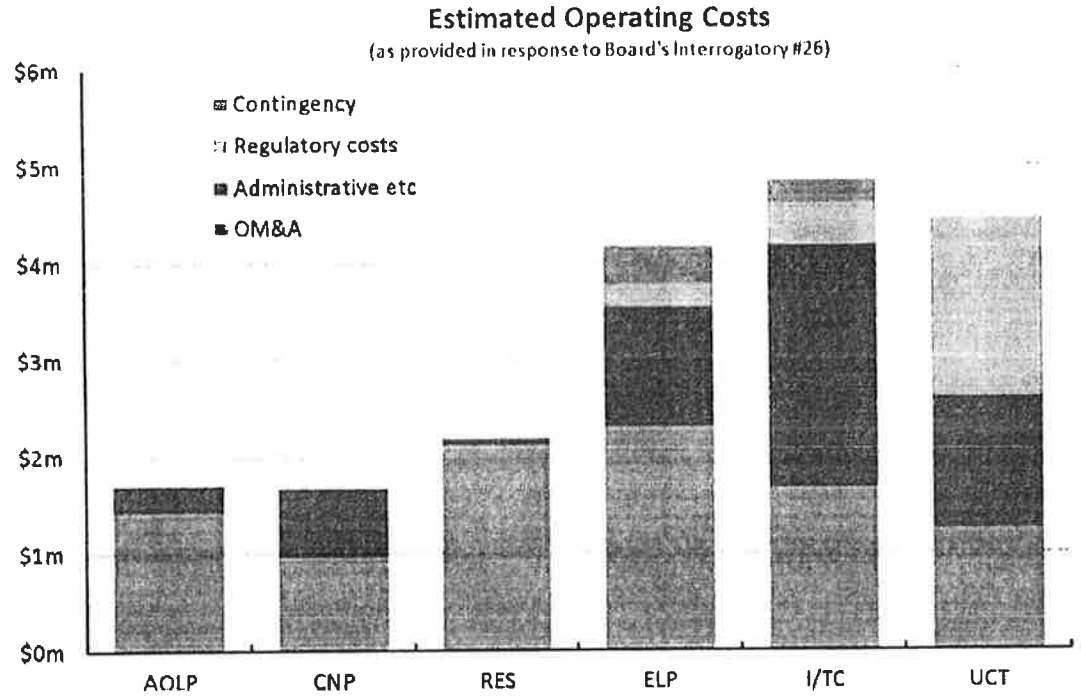
O&M Costs

EWT LP approached its O&M cost estimate in the same rigorous way as its development and construction estimates. Unlike any other applicant, EWT LP through its partners has extensive experience in operating and maintaining transmission lines in the Project area and prepared its estimates using the cost categories given in the Board's Accounting Procedures Handbook. As a result, EWT LP's O&M estimate is reasonable. Certain applicants like AOLP, RES and CNP allocate either no or almost no budget for regulatory costs, an unusual omission for a public utility that will be before the Board in regulatory matters. In its designation application, CNP also omitted administration costs from its O&M budget, which it subsequently estimated to be more than $700,000 annually.[67] Although actual O&M expenditures will not be incurred until sometime in the future for the designated transmitter, EWT LP already has a solid understanding

[67] CNP Response to Board Interrogatory #29 to All Applicants, p. 1.

of the expected reasonable costs necessary to operate major transmission infrastructure in Ontario.

Figure 5 – Estimated Operating Costs



C. Technical Design

The designated transmitter's ability to develop an innovative yet feasible technical design will be critical to ensuring that a leave to construct application will present a cost-effective and timely proposal for ratepayers. Ultimately, the applicants must be evaluated not only on the strength of their proposed designs but also on their plans (or lack thereof) to assess those designs to ensure the greatest benefit for ratepayers. In addition to meeting the Board's technical design criteria, EWT LP distinguishes itself from other applicants because:

- EWT LP has proposed a suite of potential technical designs, which could result in the greatest cost savings and reliability for ratepayers (including an approximately $116 million savings if a single circuit cross-rope suspension option proves to be the preferred alternative over the Reference Case); and

- Unlike other applicants, EWT LP has set out a plan to assess its suite of alternatives[68] during the development phase by including the broadest range of alternatives and identifying the specific studies required for the selection of the best option, rather than prejudging the result.

EWT LP's alternatives

EWT LP's suite of alternatives include the following:

- the Board's Reference Option, a conventional double circuit line design based on the X10 family of steel lattice towers;
- a modified Reference-based design, without the single loop galloping criteria;[69]
- a single circuit design;[70] and
- a single circuit design with CRS.[71]

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[68] EWT LP Designation Application, Appendix 9D - Route Selection Process.

[69] EWT LP commissioned Power Engineers to study the assumptions underlying the reference option to determine whether modified design parameters with prudent limits would increase value to ratepayers and whether any alternative, innovative technical designs would be technically feasible in the Project area while at the same time reducing costs for ratepayers. Further to this assessment, Power Engineers identified the single loop galloping criteria as overly conservative. Adhering to the galloping criteria using traditional tower designs such as the X10 will require shorter spans and this will increase the number of towers required and hence the construction and maintenance cost of the line. However, Power Engineers noted that the existing East-West Tie, which has relatively long spans using the X7 tower family, does not comply with the Board's galloping criteria, yet Hydro One Networks Inc. reported that the line had performed satisfactorily with no issues caused by galloping. EWT LP has therefore proposed to assess the galloping criteria in the development phase prior to finalizing the choice of towers in order to achieve the most cost effective technical design.

[70] EWT LP also considered additional innovative alternatives that also achieve reliability and cost-savings for ratepayers. EWT LP therefore commissioned Power Engineers to study single circuit alternatives as well. In particular, Power Engineers considered the electrical performance of a 795 kcmill Drake Conductors in a 2 bundle arrangement and concluded that it would have equivalent electrical performance to the single line options studied by the Independent Electricity System Operator ("**IESO**") in its August 18, 2011 Feasibility Study for Reinforcing the East-West Tie. The IESO concluded that a single circuit line complies with all reliability standards but unlike a double circuit line would require the IESO to take post-contingency actions to prepare for a second contingency. Power Engineers indicated that steps could be taken to make a single circuit line more reliable than the design studied by the IESO for relatively small incremental costs. Doing so would reduce but not eliminate the difference in performance of a single circuit line compared to a double circuit line. Again, EWT LP has presented this alternative for further study during the development phase.

[71] EWT LP recognized the potential for even further cost savings associated with a single line alternative that used a tower design that has been proven to work in conditions similar to northern Ontario. In this regard, EWT LP explored how the cost-benefit analysis would change if a single line option were considered in combination with CRS structures. Power Engineers noted in the same report that CRS structures, though new to Ontario,

These four potentially feasible designs present a range of alternatives for the Board that, once assessed further in the development phase, are likely to yield the most cost-efficient design for ratepayers. In contrast, RES and UCT appear committed to developing only one technical design even before any development work has been completed.

Moreover, EWT LP has not presented a range of alternatives at the expense of proposing viable designs. All are strong alternatives that warrant further consideration. This is unlike the applications of RES and UCT, which have proposed technical design options that are ill-suited for the Project area. For example, as discussed in greater detail in Section III-A below, RES's technical design fails to:

- properly characterize the technical aspects of its selected ACSS conductor;
- understand the physical attributes of its preferred H-frame structure and the impact those attributes have on the needed foundations and associated costs;
- appreciate cascade failure risk of the preferred design and the need to mitigate that risk; and
- make the fundamental connection between the nature of RES's preferred structures and the geological characteristics of the land on which the structures will be placed.

Similarly, as discussed further in Section III-B below, UCT has not demonstrated that its recommended design, a double circuit "Y" tower, has been successfully used by either UCT or another transmitter in similar conditions to the East-West Tie, or in any conditions. Based on the evidence filed, the design appears to be completely untested and very likely unworkable. Thus, of all the applicants, only EWT LP has proposed a range of technically credible design options that can be brought into the development phase to determine which one will provide better value for ratepayers.

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have been widely and successfully used in other jurisdictions including 2,000 km of lines in northern Quebec. Power Engineers also notes that CRS structures have a significantly lower construction cost compared to conventional free-standing steel lattice towers. Power Engineers estimates a new single circuit East-West Tie line using CRS structures would be approximately $116 million less expensive than a conventional double circuit line based on the existing X10 tower family.

EWT's plan for evaluating alternatives

As mentioned above, EWT LP has presented a range of alternatives and a plan for assessing the costs and benefits of those alternatives during the development stage. Project development for a new transmission line of this rating and length will involve ongoing engineering work, extensive discussions with land owners and other stakeholders, the acquisition of land rights, the completion of an environmental assessment and consultation with First Nations and Métis communities.[72] Unlike other applicants, EWT LP has set out these design activities in great detail.[73] For example, EWT LP provides a road map for the studies it will conduct during the development phase to evaluate each proposed alternative's impact on the region's transmission network. Such studies include an assessment of power flow and reactive power requirements under normal and contingency conditions; preliminary lightning performance analyses; and line impedance comparisons for different circuit and conductor/bundling configurations.

With four technically sound alternatives ready to evaluate, a comprehensive plan already in place to complete that evaluation, and that evaluation plan factored into its schedule, EWT LP is well positioned to begin its technical design refinement promptly upon designation. No other applicant is as prepared to test the key assumptions underlying the Reference-Based Design and undertake the studies necessary to evaluate a range of credible alternatives to see which can be adopted at a lower cost. Those that have advocated innovative designs (RES and UCT) have not factored such an evaluation into their schedules. As mentioned, EWT LP's preliminary estimates suggest a potential savings of $116 million, relative to the Reference-Based Design, by pursuing a single circuit CRS design. No other applicant's technical design alternatives offer that degree of cost savings. And no other applicant is as well prepared as EWT LP to assess its design alternatives in the development phase to determine the most technically appropriate design for the Project and the most cost-effective design for ratepayers.

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[72] As discussed in Sections 7, 9 and 10 of its Designation Application, EWT LP has developed a detailed consultation plan and schedule which factors in numerous technical design activities.

[73] See EWT LP Designation Application, Appendix 6C.

D. Consultation and Land Acquisition

EWT LP's development plan establishes how it will obtain a "social license" to develop, construct and operate the Project. In particular:

- EWT LP's Aboriginal and Public Consultation is unparalleled among the applicants' plans in its detail and in its commitment to community-based consultation;
- EWT LP, unlike other applicants, has a comprehensive land acquisition strategy that ensures early consultation and attempts to minimize the need to expropriate land after the leave to construct is filed; and
- EWT LP has proposed the most comprehensive plan for routing the Project of any applicant.

This focus on building broad-based stakeholder support through consultation is critical to being able to expeditiously and cost-effectively develop and construct the Project.

EWT LP has proposed the most effective plans for Aboriginal and public consultation

Developing a social license through broad-based community consultation is critical to successful project development. A number of Ontario electricity projects -- including the Oakville generating station, the York Region Transmission Reinforcement Project, and the Scarborough Bluffs offshore wind project -- were recently cancelled, in part because they did not achieve the necessary social license. Recognizing this and consistent with its community-centric approach to development, EWT LP has developed robust and comprehensive plans for consulting with Aboriginal communities, and for consulting with municipalities, federal and provincial agencies, landowners and the public.[74] The consultation plans have been prepared not only to meet the statutory consultation requirements of the *Environmental Assessment Act,* but also to solicit stakeholder input at the earliest opportunity and throughout the Project and to appropriately incorporate this input into the final Project design. EWT LP will build relationships and work alongside stakeholders over the course of Project development, including via sixty open house sessions (equally covering both local and Aboriginal consultation) conducted at a number of

[74] See EWT LP Designation Application, Appendix 10A.

locations across the Project area. EWT LP's development schedule allows for more time to consult and integrate stakeholder feedback, which will in turn reduce the risk that Project permits or construction are opposed. This could ultimately enable EWT LP to accelerate the development and construction processes.

EWT LP's 32-page Aboriginal and community consultation plan is the most robust, comprehensive and detailed of any applicant. It sets out in detail EWT LP's principles and approach to Aboriginal and local consultation and ensures conformity with regulatory requirements and best practices. It also includes detailed work plans identifying specific consultation tasks for each phase of the Project. In contrast, CNP did not produce an Aboriginal consultation plan, as discussed further in Section III-E below, in direct contravention of Board filing requirements.[75]

EWT LP, through its partners, also has unique experience that will enable it to ensure the successful implementation of its consultation program. For example, BLP's participation from the beginning of the Project planning process has been significant in shaping EWT LP's approach to Project development and consultation. BLP will continue to advise EWT LP on the appropriate consultation strategy for the Project. Many of the Participating First Nations bring to EWT LP the unique perspective of having been both consultor and consultee in power and infrastructure developments in the Project area. For example, the Participating First Nations have not only conducted consultation in the Project area among other local and Aboriginal communities and stakeholders in conjunction with their own generation projects, such as Umbata Falls,[76] but have also been subject to consultation in the Project area, such as in conjunction with the Marathon PGM Metals mine.[77] As a result, BLP is particularly sensitive to the challenges in the consultation process, especially with respect to Aboriginal communities. The Participating First Nations also have long-standing relationships with other Aboriginal communities, land owners, municipalities and agencies in the Project area, which will facilitate EWT LP's rapid

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[75] Ontario Energy Board, Phase 1 Decision and Order (July 12, 2012), Appendix A - Filing Requirements for Designation Applications, Requirement #10.1.

[76] EWT LP Designation Application, Exhibit 2, pp. 4-5.

[77] See EWT LP Designation Application, Exhibit 10, p. 10.

understanding of key Aboriginal and local issues that may affect the location, design and construction of the Project.

Ultimately, EWT LP's consultation plan recognizes that meaningful consultation requires giving stakeholders genuine opportunities to shape the design and route of the Project. EWT LP is not taking the "design first, consult later" approach favoured by some proponents. Proponents such as AOLP and UCT, that intend to approach stakeholders with a ready-made plan for Project development, will likely not be offering meaningful opportunities to receive and integrate public feedback and, as a result, risk encountering delays and cost impacts due to public opposition.

EWT LP has proposed the most effective land acquisition strategy

EWT LP recognizes that obtaining the land rights necessary to develop the Project presents challenges that, if not anticipated and managed, can trigger expropriation hearings and otherwise significantly delay the Project schedule and increase costs. Therefore, EWT LP plans to meet with landowners at the earliest opportunity to identify and evaluate potential routes with the benefit of landowner input. It will work with landowners, owners of interests in the land and government authorities to identify parcels where the existing land use would be consistent with or benefit from the construction of the Project and use this information to impose different ratings when evaluating corridor preference.[78] EWT LP will make every effort to reach voluntary agreements with property owners and to avoid potential routes that would require the expropriation of multiple properties.[79] This proactive approach benefits ratepayers by reducing the risk of having to return to the Board after a leave to construct has been granted to seek expropriation of land rights -- a time consuming and expensive process. EWT LP has also set out specific detailed plans for the acquisition of different categories of land rights, including private land, Crown land, crossings, Reserve land, provincial and national parks.[80]

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[78] EWT LP Designation Application, Exhibit 9, pp. 2-3.
[79] EWT LP Designation Application, Exhibit 7, p. 18.
[80] EWT LP Designation Application, Exhibit 9, pp. 5-11.

Furthermore, EWT LP will adopt a set of detailed land acquisition principles for the Project based on land acquisition principles that were accepted by the Board in connection with the Bruce to Milton Transmission Reinforcement Project.[81] EWT LP's land acquisition principles will include principles of property owner choice, transparent appraisal procedures and incentive compensation for voluntary and timely land acquisition.[82] A principled and consistent approach to land acquisition will help ensure landowners are treated -- and perceive themselves to be treated -- fairly.

EWT LP has proposed the most comprehensive routing plan

EWT LP has identified a number of routing considerations, particularly in regard to the more densely populated areas around Thunder Bay. Applying its extensive local knowledge, EWT LP has broken the potential route into four segments and analyzed the particular routing concerns of each segment.[83] In the segment between Thunder Bay to Nipigon, EWT LP has identified potential benefits in rationalizing some of the existing transmission infrastructure and using an existing ROW corridor for the new line, which have not been identified by any other applicant.[84] EWT LP has also developed a detailed methodology for refining the Project route[85] and compiled a summary of the relevant land use policies that will need to be taken into consideration.[86] In addition, EWT LP proposes holding a routing workshop between November 2013 and January 2014[87] (and, potentially, a second routing workshop between March and April 2014[88]) to work with stakeholders to refine the final Project route.

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81 See EWT LP Designation Application, Appendix 4E.

82 See EWT LP Designation Application, Exhibit 9, p. 7.

83 See EWT LP Designation Application, Exhibit 9, pp. 18-36.

84 See EWT LP Designation Application, Exhibit 9, pp. 22-24.

85 EWT LP Designation Application, Appendix 9D.

86 EWT LP Designation Application, Appendix 9F.

87 See EWT LP Designation Application, Appendix 7A - Project Workflow (Regular) and Appendix 7B - Project Workflow (Accelerated).

88 See EWT LP Designation Application, Appendix 7A - Project Workflow (Regular).

E. Conclusion

Only EWT LP has undertaken the necessary detailed Project planning work to ensure it has budgeted appropriate time and resources to provide ratepayers with a comprehensive, cost-effective and prudent plan for Project development, construction, operation and maintenance.