

June 8, 2020

BY EMAIL ONLY (kirby.dier@ontario.ca)

Ms. Kirby Dier
Network and Microgrid Policy
Ministry of Energy, Northern Development and Mines
77 Grenville St, 6th Floor
Toronto, ON M7A 2C1

Dear Ms. Dier:

Re: Proposal to identify and protect a corridor of land for future electricity infrastructure in the Greater Toronto Area (ERO #019-1503)

Thank you for the opportunity to comment on the Ministry of Energy, Northern Development and Mines' (ENDM) Environmental Registry (ERO) posting on the proposal to identify and protect a corridor of land for future electricity infrastructure in the Greater Toronto Area (GTA), in support of future growth in Halton, Peel and York regions.

The Toronto and Region Conservation Authority (TRCA) conducts itself in accordance with the objects, powers, roles and responsibilities set out for conservation authorities (CA) under the *Conservation Authorities Act* and the MNRF Procedural Manual chapter on CA policies and procedures for plan review and permitting activities, as follows:

- A public commenting body under the *Planning Act* and *Environmental Assessment Act*;
- An agency delegated the responsibility to represent the provincial interest on natural hazards under Section 3.1 of the Provincial Policy Statement;
- A regulatory authority under section 28 of the *Conservation Authorities Act*;
- A service provider to municipal partners and other public agencies;
- A Source Protection Authority under the *Clean Water Act*;
- A resource management agency; and
- A major landowner in the Greater Toronto Area.

In these roles, TRCA works in collaboration with municipalities and stakeholders to protect people and property from flooding and other natural hazards, and to conserve natural resources.

Government Proposal

The Independent Electricity Systems Operator (IESO), Ontario's electricity planner, has identified a long-term need for electricity transmission infrastructure in Halton, Peel and York regions, but the technical scope of transmission infrastructure required, and the timing of its need may not be certain for many years. In June 2019, ENDM and the IESO initiated the Northwest GTA Transmission Corridor Identification Study (the study) to identify an appropriate corridor of land for use by future linear transmission infrastructure when the need arises. TRCA understands that the government is currently seeking feedback on the proposed narrowed study area, shown in the Proposed Transmission Narrowed Area of Interest figure included in the ERO posting, as well as input on the guiding principles the government will consider in conducting the study. The outcome of the study will be a recommendation on land to be preserved for future transmission infrastructure and protected from development for other purposes.

ENDM has noted that any future electricity transmission development in the study area would be subject to *Environmental Assessment Act* requirements and other applicable regulatory approvals, including through the Ontario Energy Board.

General Comments

TRCA understands that the currently proposed narrowed area of interest for the transmission corridor largely corresponds to the Ministry of Transportation's (MTO) 2019 Focused Area Analysis for the GTA West Highway Environmental Assessment (EA). TRCA is a commenting agency involved in the review of the GTA West Highway EA. At this time, TRCA understands that the exact alignment of the highway has not been confirmed, nor is it clear where the electricity transmission corridor will be located relative to the highway (north of or south of the highway). Via a presentation to TRCA's Board of Directors on January 24, 2020, and through multi-agency working groups for the EA, MTO indicated that they anticipated sharing the preferred multimodal transportation corridor route publicly before the end of Spring 2020, with the exception of Sections 7 and 8 where further work is required to confirm the route in those areas.

A resolution from TRCA's Board of Directors meeting of January 24, 2020, was that MTO and ENDM/IESO confirm efforts to coordinate their independent studies and ensure negative impacts are fully assessed and minimized wherever practicable. Staff's report and recommendations to the Board recognized the substantial environmental impact the infrastructure projects can have, often crossing or running parallel to natural systems, requiring vast areas of natural feature removals, major grade and drainage alterations, and installation of hardened surfaces or underground components affecting groundwater and surface water receptors, e.g., watercourses, wetlands, woodlands.

The transmission corridor study area traverses TRCA's jurisdiction through the Etobicoke Creek, Mimico Creek and Humber River watersheds, including several hectares of TRCA-owned lands known as the Nashville Conservation Reserve. TRCA concerns are related to how the two infrastructure corridors would affect:

- flood and erosion hazards;
- watercourse and wildlife crossings;
- stormwater management;
- natural feature removals and corresponding ecosystem compensation;
- land use and/or acquisition of TRCA-owned lands as it may affect natural heritage and archaeological resources and recreation master planning, including trails and trail connections, and ultimately,
- climate resilience.

The Provincial Policy Statement's section 1.6 requires infrastructure and public service facilities to be provided in an efficient manner that prepares for the impacts of a changing climate while accommodating projected needs. It is TRCA's assertion that the transmission corridor study's attention to many of the above noted concerns will help demonstrate how such preparation can be addressed.

Detailed comments

TRCA's comments are organized according to the five guiding study principles and the questions posed in the ERO posting. We understand that provincial legislation, policies and technical planning documents have informed the principles and that "balance among the principles will be required in implementing the study."

Principle 1: Co-locate with other linear infrastructure

Corridor routing should maximize the use of existing linear infrastructure corridors wherever feasible (e.g., GTA West Transportation Corridor, 400 series highways, other infrastructure corridors).

TRCA understands ENDM is recognizing the opportunity to co-locate a transmission corridor with the Ministry of Transportation's (MTO) proposed GTA West Transportation Corridor, and so are proposing to align the timing of the study with milestones related to MTO's Environmental Assessment. TRCA supports the co-location of linear infrastructure in accordance with the Provincial Policy Statement (PPS), the Growth Plan and the TRCA's own policy document, The Living City Policies. By avoiding fragmenting large swaths of land in multiple locations, co-location of linear infrastructure can help minimize impacts to natural hazards, natural features and water resources.

Also aligned with provincial policies, is The Living City Policies' recommendation for coordinated processes (e.g., *Planning Act* and *Environmental Assessment Act*) to facilitate strategic infrastructure placement and design that avoids cumulative impacts and seeks opportunities for improvements to natural systems. In addition, the Growth Plan and the recently updated PPS both contain policies for greater integration of infrastructure planning with development planning with an aim to limiting land consumption and resource use.

While we understand that the transmission study is independent of the GTA West Highway Environmental Assessment, these studies should be coordinated to optimize opportunities for avoiding or reducing risk associated with natural hazards, for minimizing, mitigating and compensating for impacts to the natural heritage system, and for seeking opportunities for remediation and restoration enhancements.

Principle 2: Plan for the most cost-effective outcome

Corridor routing should protect least cost routing where feasible, which could include identifying the shortest geographic route and reducing crossings of other infrastructure such as highways, railways, pipelines and other transmission lines.

TRCA staff are supportive of corridor route planning that minimizes costs, contingent on all of the study principles being weighted fairly so that major environmental impacts will not be accepted in favour of least-cost alignments. We note that the principle's examples of identifying the shortest geographic route and reducing crossings of other infrastructure may be ambitious given the need for connections at specific locations and that realignments may be required to avoid existing infrastructure.

TRCA recognizes the need to minimize costs in the siting and alignment of the transmission corridor, but the assessment should also take a long-term view regarding the later stages of planning, design and construction of the electricity infrastructure. A short, direct route alignment may result in having to cross through difficult to construct areas due to natural hazards or groundwater conditions. The long-term costs of maintenance or repair from damage due to erosion or groundwater issues, for example, need to be considered, as well as the potential for exacerbation of these issues due to the surrounding urbanizing landscape and climate change. In this regard, other least-cost routing measures, which would also align with Principle 3, would be to minimize the number of crossings of valley and stream corridors.

Unavoidable impacts to the natural heritage system and the need for ecosystem compensation should also be factored into costing analyses. TRCA will recommend ecosystem compensation for loss of natural features at the EA stage of the project and at detailed design under TRCA's permitting process. This is especially important to assess early in the process, since infrastructure maintenance requirements may limit opportunities for placement of restoration plantings within the infrastructure footprint. Similarly, restoration locations outside the transmission corridor may be limited due to the GTA West Highway footprint and development pressures in proximity to the proposed study area. Comprehensive, upfront planning for the corridor will help streamline the approach to finalizing compensation at later planning stages and provide an estimate of the associated cost to better inform the preferred alignment.

Further, given that several hectares of TRCA-owned property will be traversed by the transmission corridor, TRCA Property staff request that future TRCA land acquisition costs be included within the costing analysis of

the study and, once the design has been finalized, that negotiations be undertaken regarding land base compensation for any lands impacted.

A comprehensive analysis that considers all of the study principles equally, and the impacts of a changing climate, should determine the most cost-effective outcome in the short and long term.

In order to plan for the most effective outcome, TRCA recommends that the criteria for selecting a recommended transmission corridor include factors in addition to cost, and that these criteria be evaluated and weighted such that the process to determine the preferred route alternative is clear and transparent.

Principle 3: Minimize impacts to natural heritage, agricultural and hydrological features consistent with provincial policies

Minimize corridor impacts on the natural heritage system, agricultural lands and hydrologic features consistent with provincial policies and plans (e.g., Provincial Policy Statement, Growth Plan, Greenbelt Plan).

TRCA supports this principle as The Living City Policies align with provincial and municipal policies for protection of natural heritage and water resources systems as well as agricultural lands. In order to meet this principle, the study criteria should include evaluation of impacts to watercourses, wetlands, and valley and stream corridors. TRCA recommends that this principle also incorporate the provincial requirements of reducing the risks associated with natural hazards of flooding and erosion. The PPS directs that infrastructure should be strategically located to support the effective and efficient delivery of services, and to ensure the protection of public health and safety in accordance with the natural hazard policies in Section 3.0. As well, the Growth Plan states that infrastructure must be adapted to be more resilient.

Siting of infrastructure during the next planning phases will be important to achieving resilience and to avoiding and minimizing impacts to natural heritage, and to avoiding and mitigating risks associated with natural hazards. Construction technologies for installing underground infrastructure to avoid natural feature removals may be preferred to above-ground, although studies need to determine which options will best minimize impacts. It is TRCA's understanding that an EA will be completed to further assess the preferred alignment as determined by the corridor study, followed by design and permitting. We look forward to further involvement as the analysis supporting the various alignments within the recommended corridor takes place.

Should the transmission corridor study reveal limited opportunities for restoration plantings within the corridor due to maintenance access needed for infrastructure components, there may still be opportunity for meadow habitat restoration. TRCA's [Meadoway](#) project is a unique approach to integrating and naturalizing linear public open space into urban landscapes. The existing infrastructure corridor spanning TRCA watersheds is undergoing enhanced naturalization with meadow habitat and trail construction, subject to restrictions on uses within the corridor. It is recommended that future transmission corridor design alternatives for the current transmission study consider opportunities to enhance biodiversity in this way, thereby meeting shared public agency objectives and provincial policies for active transportation and climate resilience.

Principle 4: Minimize impacts on built up areas

Corridor routing should minimize impacts on existing municipal plans in the study area, including impacts on existing built up areas, cultural heritage, planned developments and airports.

TRCA staff have worked closely with municipalities and the development industry to plan for the development, redevelopment and intensification of the areas in proximity to the corridor while protecting and enhancing the natural heritage system and avoiding and mitigating the risk associated with flood and erosion hazards. Natural heritage lands, including hazardous lands, have been conveyed into public ownership through municipal planning processes. TRCA supports the principle that impacts to municipal plans and built up areas be

minimized, especially given the significant efforts invested in negotiating for the protection, management and public conveyance of natural system lands.

Principle 5: Provide flexibility for the future

- *Corridor routing should take a long-term view and should not preclude reasonably anticipated future infrastructure requirements.*
- *Corridor routing should allow for connections to existing electrical infrastructure.*
- *Corridor routing should not preclude specific technology types, which will be determined by a future transmitter (i.e., overhead lattice, overhead monopole, underground).*
- *Corridor routing should preserve sufficient flexibility for future environmental study.*

TRCA agrees and supports the statements regarding flexibility for the future as listed in this principle. Indeed, as indicated in our comments above, TRCA recommends that routing should take a long-term view in order to consider future costs and to prepare for the impacts of a changing climate.

We recommend that in terms of future infrastructure requirements that recreational / trail considerations should also be considered. The Parkway Belt West Plan included conceptual trail alignments for a similar scale hydro transmission and utility corridor. You may wish to reference the September 2019 [TRCA Trail Strategy](#) in your study and the future EA and design work should be viewed as an opportunity to implement TRCA Trail Strategy through an approach similar to TRCA's work with Hydro One and the City of Toronto with the Meadoway on the Gatineau corridor in Toronto.

With regard to specific technology types, TRCA appreciates this flexibility given that a future transmitter's ability to choose between above ground versus below ground infrastructure or a mix of both is important for exercising the best option for minimizing, mitigating and compensating for environmental impacts.

Also noted above, we understand that an EA will be completed at a later stage to further narrow the transmission route within the broader protected corridor. TRCA appreciates that there will be some level of flexibility within the corridor to adjust the location of the transmission infrastructure, once data become available to further inform exact alignments.

Question 1: Are you aware of potential barriers or issues that may be associated with the proposed narrowed area of interest?

In January 2020, TRCA staff reviewed the potential impact of the various proposed MTO transportation alignments for the GTA West Highway on TRCA-owned property. At that time, the potential impact to TRCA-owned property from the transportation corridor ranged from 8 to 73 hectares (ha), depending on the route. In TRCA's report of January 24, 2020 entitled "GTA West Transportation Corridor Individual Environmental Assessment," submitted to MTO, TRCA identified several areas of concern including possible impacts to TRCA-owned lands.

The 2019 Focused Analysis Area for the GTA West Highway Environmental Assessment and the Proposed Transmission Narrowed Area of Interest represent a broader area of study than the specific transportation routes evaluated in January 2020. The total potentially affected TRCA-owned land in the Proposed Transmission Narrowed Area of Interest is approximately 130 hectares.

The majority of the potentially impacted TRCA lands are in the Nashville Conservation Reserve (NCR) in Vaughan. The NCR is a 900+ hectare TRCA property that supports a variety of wildlife, provides significant deer wintering yards and is an important migratory corridor. It is a diverse site containing many different habitat types such as forests, wetlands, meadows, former agricultural fields and small tributaries that feed into the main branch of the upper Humber River. Phase 2 of the Nashville Multi-Use Trail Project, undertaken by TRCA in partnership with York Region and the City of Vaughan, is currently ongoing and will build a 400-metre

section of compacted granular trail to improve trail quality, accessibility and inter-regional trail connections in the vicinity of the GTA West Highway preferred technical route. The NCR's large size and current and future ecological value make it an integral part of our city-region's natural heritage system.

TRCA appreciates that a protected corridor for electrical transmission is required to accommodate projected energy needs for rapidly growing communities. Rather than being a barrier, the protected ecosystems and nature-based recreation opportunities currently being enhanced and established in the NCR also represent an important public service that should be able to persist in tandem with the highway and the transmission corridor. Therefore, TRCA recommends that the transmission study direct the future transmitter to mitigate the impacts that construction and installation will have on the NCR, and where this is not possible, to integrate natural system and trail connectivity into the different infrastructure components to maintain connectivity for both wildlife and public use.

Question 2: Are there other principles we should consider in conducting the study?

As mentioned in the comments on Principle 2, TRCA recommends that avoiding or reducing the risk associated with natural hazards of flooding and erosion also be included as a guiding principle of the study. TRCA is an agency delegated the responsibility to represent the provincial interest on natural hazards under Section 3.1 of the PPS. Consideration of natural hazards should be incorporated as early as possible in the infrastructure planning process of the transmission corridor location and is an appropriate consideration to include in the study as it relates to climate resiliency. In TRCA's experience, placement of hydroelectric corridors adjacent to and crossing valley systems results in increased erosion risk, as regular maintenance within the corridor often creates a need for access routes through sensitive areas, over watercourses, down valley slopes and through wetlands. It will be essential once this project moves into the EA phase, that the type of infrastructure technology and location for a route to be identified and recommended that avoids sensitive and hazardous areas to the extent possible.

TRCA Property staff request that there be coordination with TRCA throughout the transmission corridor planning and design process to further review and provide input on options to avoid and mitigate impacts to TRCA-owned lands, and to determine an alignment that will minimize and/or mitigate impacts through the Nashville Conservation Reserve.

Question 3: Do you have any other outstanding questions or concerns?

Based on the review of information on the transmission corridor and the GTA West Highway provided to date, TRCA staff raised several issues that have yet to be addressed. Many of these issues are also relevant to both projects, such as:

- What will be the cumulative impacts of two infrastructure corridors on the surrounding NHS?
- Will there be further updates provided by ENDM regarding background information to inform a preferred corridor?
- How and where will this be documented? Will this be documented through the IESO's Integrated Regional Resource Plan update or through another process?
- The geographic scale of the protected transmission corridor is not clear. TRCA requests that ENDM clarify the proposed protected corridor width in order to inform further TRCA feedback.
- The potential orientation of the transmission corridor relative to the GTA West Highway project is not clear (i.e., will the transmission corridor alignment be located to the north or south of the highway?) TRCA requests clarification on this matter, noting that significant potential impacts to sensitive lands, including TRCA-owned lands, may occur depending on the selected approach.

In addition to providing responses to the above questions, TRCA also requests ENDM to consider a number of recommendations as described below.

TRCA Recommendations

In order to support the government's proposal to identify a corridor for electricity transmission in support of regional growth in Halton, Peel and York regions, and continue to ensure the protection of people and property from natural hazards and the conservation of natural resources, TRCA recommends the following:

- 1) That in the interest of conforming to the Provincial Policy Statement, which requires infrastructure and public service facilities to be provided in an efficient manner that prepares for the impacts of a changing climate while accommodating projected needs, the transmission corridor study address TRCA comments regarding:
 - flood and erosion hazards;
 - watercourse and wildlife crossings;
 - stormwater management;
 - natural feature removals and corresponding ecosystem compensation;
 - land use and/or acquisition of TRCA-owned conservation lands;
 - climate resilience.
- 2) That in addition to co-locating the transmission corridor with the GTA West Transportation Corridor, that the planning processes for these two major projects be coordinated in order to optimize opportunities to avoid, minimize, mitigate and compensate for environmental impacts.
- 3) Regarding projected costs:
 - a. That the study principles be fairly weighted so that major environmental impacts will not be accepted in favour of least-cost alignments.
 - b. In order to plan for the most effective outcome, that the criteria for selecting a recommended transmission corridor include factors in addition to cost, (e.g., all study principles and the impacts of a changing climate), and that these criteria be evaluated and weighted such that the process to determine the preferred route alternative is clear and transparent.
 - c. To streamline the approach to finalizing required compensation at later planning stages and inform cost estimates, that requirements for ecosystem compensation (to compensate for unavoidable impacts to the natural heritage system) and associated costs be considered in the study.
 - d. That future TRCA land acquisition costs be included within the costing analysis of the study and, once the design has been finalized, that negotiations be undertaken with TRCA Property staff regarding land base compensation for any lands impacted.
- 4) That the transmission corridor study criteria include evaluation of impacts to watercourses, wetlands, and valley and stream corridors.
- 5) That the provincial requirements of reducing the risks associated with natural hazards, be added to Principle 3 on provincial policies.
- 6) That future transmission corridor design alternatives consider opportunities to enhance biodiversity, incorporate active uses and fully maximize restoration opportunities within the corridor, subject to restrictions on uses within the corridor, using [The Meadoway](#) project as a model.

- 7) That the environmental impacts of above- versus below-ground technologies be considered in future decisions on technology and alignment alternatives, noting TRCA's preference for the option that will minimize environmental impacts.
- 8) That the transmission study direct the future transmitter to mitigate the impacts that construction and installation will have on the Nashville Conservation Reserve, and where this is not possible, to integrate natural system and trail connectivity into the different infrastructure components to maintain connectivity for both wildlife and public use.
- 9) That there be coordination with TRCA throughout the transmission corridor planning and design process to further review and provide input on alignment options to avoid, minimize and mitigate impacts to TRCA-owned lands, including the Nashville Conservation Reserve.

Thank you once again for the opportunity to provide comments on the proposal to identify and protect a corridor of land for future electricity infrastructure in the GTA. Should you have any questions, require clarification on any of the above, or wish to meet to discuss our remarks, please contact the undersigned at 416.667.6290 or at john.mackenzie@trca.ca.

Sincerely,

<Original signed by>

John MacKenzie, M.Sc. (PI) MCIP, RPP
Chief Executive Officer

BY-E-MAIL

Cc: Lukasz Grobel, Project Manager, Ministry of Transportation

TRCA: Laurie Nelson, Director, Policy Planning
Sameer Dhalla, Director, Development and Engineering Services
Moranne McDonnell, Director, Restoration and Infrastructure
Beth Williston, Associate Director, Infrastructure Planning and Permits
Daniel Byskal, Associate Director, Property and Risk Management