

# GO Rail Network Electrification Transit Project Assessment Process

## *Study Summary: Land Use & Socio-Economic Assessment (Appendix E)*

### Land Use

#### Scope of the Study

The scope of the GO Rail Network Electrification Transit Project Assessment Process (TPAP) involves electrification of the following GO Transit rail corridors:

1. Union Station Rail Corridor – From UP Express Union Station to Don Yard Layover
2. Lakeshore West Corridor – From just west of Bathurst St (Mile 1.20) to Burlington
3. Kitchener Corridor – From UP Express Spur (at Highway 427) to Bramalea
4. Barrie Corridor – From Parkdale Junction (off Kitchener Corridor) to Allandale GO Station
5. Stouffville Corridor – From Scarborough Junction (off Lakeshore East Corridor) to Lincolnville GO Station
6. Lakeshore East Corridor – From Don Yard Layover to Oshawa GO Station

The Study Area encompasses the GO Transit rail corridors outlined above including the defined vegetation removal zone (i.e., an area extending 7m from the outermost electrified tracks on each side of the corridor), proposed locations for Tap and Traction Power Facilities, and electrical feeder routes.

The Land Use and Socio-Economic Assessment Report for the GO Rail Network Electrification is composed of two parts: i) Land Use and Socio-Economic Baseline Conditions Report and ii) Land Use and Socio-Economic Impact Assessment Report.

#### Approach/Methodology

Baseline conditions for land use/socio-economic features were characterized based on the following available information that was collected:

1. Existing land use - residential, commercial/industrial, recreational, institutional, Mixed Use, Utilities/Transportation, etc.
2. Future/planned land use - Official Plans including zoning by-laws, neighbourhood plans, development applications, and other related studies
3. Sensitive facilities including schools, child care centres, long-term care centres, and hospitals in the vicinity of the study area were identified and mapped

The assessment of impacts on land use was based on a review of any property requirements associated with the electrification undertaking (installation of Overhead Contact System along corridors, installation of traction power facilities, etc.) that may impacts adjacent land uses. The assessment of socio-economic impacts involved assessment of potential effects on sensitive facilities as defined/identified through the baseline phase. It should be noted that the detailed impact assessments related to Air Quality, Noise/Vibration, Visual and EMI/EMF can be found in the following respective reports:

- Air Quality Impact Assessment Report (Appendix F), Noise/Vibration Impact Assessment Report (Appendix G), Visual/Aesthetics Impact Assessment Report (Appendix H), and EMI/EMF Impact Assessment Report (Appendix J).

## Summary of Key Impact Assessment Results

### Land Use

The term 'sensitive facility/receptor' is defined in the Land Use and Socio-Economic Baseline Conditions Report (Section 3.2) as: "child care centres, schools, long term care centres, and hospitals." The term 'sensitive receptor' is defined by various policies, including the Provincial Policy Statement (PPS). The PPS defines 'sensitive land uses' for the purposes of assessing land use planning and development projects under The Planning Act. Further, 'contaminant discharges generated by a nearby major facility' are not anticipated or included as part of the electrification project works.

In general, the assessment concluded that potential land use and socio-economic effects resulting from the project are primarily related to nuisance effects (noise, vibration, temporary traffic effects, and temporary easements) associated with construction and operation activities. Bridge modifications also have the potential to require temporary road closures to facilitate construction.

### Property

In terms of property impacts associated with the electrification undertaking along the rail corridors:

- Based on the conceptual design developed, there are no anticipated property takings/impacts associated with implementing Overhead Contact System (OCS) infrastructure along the rail corridors.

In addition, property impacts related to Taps/Traction Power Facility sites are summarized as follows:

Traction Power Facilities & Ancillary Components	Property Owner	Acquisition/Easement Required?
<b>Mimico Tap/Traction Power Substation (TPS)</b>	Metrolinx	No – on Metrolinx property
Access Road	Hydro One (HONI)	Yes – easement off Lockport Ave to site through HONI property
Underground Duct Banks	Metrolinx	No – on Metrolinx property
Gantries	Metrolinx	No – on Metrolinx property
<b>Mimico Switching Station (SWS)</b>	Privately Owned	Yes – acquisition
Access Road	Privately Owned	Yes – acquisition
Underground Duct Banks	Privately Owned	Yes – acquisition
Gantries	Privately Owned	Yes – acquisition
<i>Canpa 25kV Feeder Route</i>	Metrolinx	No – on Metrolinx property
<b>Burlington Tap/TPS</b>	Hydro One	Yes – acquisition or easement
Access Road	Hydro One	Yes – easement off Cumberland Ave to site through HONI property
Underground Duct Banks	Hydro One	Yes – easement through HONI property
Gantries	Metrolinx	No – in MX railway right of way
<b>Oakville SWS</b>	Metrolinx	No – on Metrolinx property
Access Road	Metrolinx	No – on Metrolinx property
Underground Duct Banks	Metrolinx	No – on Metrolinx property
Gantries	Metrolinx	No – on Metrolinx property
<b>Bramalea Paralleling Station (PS)</b>	Privately Owned	Yes – acquisition
Access Road	Privately Owned	Yes – easement off Dixie Road through private property

<b>Traction Power Facilities &amp; Ancillary Components</b>	<b>Property Owner</b>	<b>Acquisition/Easement Required?</b>
Underground Duct Banks	Privately Owned	Yes – acquisition
Gantries	Privately Owned	Yes – acquisition
<b>Bramalea 25kV Feeder Route</b>	Canadian National Railway	Yes – easement or agreement
<b>Barrie Collingwood Railway 25kV Feeder Route</b>	City of Barrie	Yes – easement or agreement
<b>Allandale Tap</b>	Hydro One	Yes – acquisition or easement
<b>Allandale TPS</b>	Privately Owned	Yes - acquisition
Access Road	Privately Owned	Yes - acquisition
Underground Duct Banks	Privately Owned	None
Gantries	Privately Owned	Yes – acquisition
<b>Gilford PS</b>	Metrolinx	No – on Metrolinx property
Access Road	Metrolinx	No – on Metrolinx property
Underground Duct Banks	Metrolinx	No – on Metrolinx property
Gantries	Metrolinx	No – on Metrolinx property
<b>Newmarket SWS</b>	Privately Owned	Yes – acquisition from Newmarket Hydro
Access Road	Privately Owned	Yes – acquisition from Newmarket Hydro
Underground Duct Banks	HONI / Privately Owned	Yes – easement on HONI property and private property
Gantries	Metrolinx	No – on Metrolinx property
<b>Maple PS</b>	Privately Owned	Yes - acquisition
Access Road	Privately Owned	Yes - acquisition
Underground Duct Banks	Privately Owned	Yes - acquisition
Gantries	Privately Owned	Yes – acquisition
<b>Scarborough Tap and TPS</b>	Hydro One	Yes – acquisition or easement
Access Road	Hydro One	Yes – easement off Mike Myers Drive to site through HONI property
Gantries	Hydro One	Yes – easement
<b>Scarborough 25kV Feeder Route (Stouffville and Lakeshore East corridors)</b>	Metrolinx	No – on Metrolinx property
<b>Unionville PS</b>	Publically Owned	Yes - acquisition
Access Road	Publically Owned	Yes – easement off Kennedy Road to site through Infrastructure Ontario (IO) property
Underground Duct Banks	Publically Owned	Yes – acquisition
Gantries	Publically Owned	Yes – easement

Traction Power Facilities & Ancillary Components	Property Owner	Acquisition/Easement Required?
<b>Lincolnville PS</b>	Metrolinx	No – on Metrolinx property
Access Road	Metrolinx	No – on Metrolinx property
Gantries	Metrolinx	No – on Metrolinx property
<b>East Rail Maintenance Facility (ERMF) Tap and TPS</b>	Metrolinx	No – on Metrolinx property
Access Road	Metrolinx	No – on Metrolinx property
Gantries	Metrolinx	No – on Metrolinx property
<b>Scarborough SWS</b>	Metrolinx	No – on Metrolinx property
Access Road	Metrolinx	No – on Metrolinx property
Underground Duct Banks	Metrolinx	No – on Metrolinx property
Gantries	Metrolinx	No – on Metrolinx property
<b>Durham SWS</b>	Hydro One	Yes – acquisition
Access Road	Hydro One	Yes – easement off Bayly Street through HONI property
Underground Duct Banks	Hydro One	Yes – acquisition
Gantries	Hydro One	Yes – acquisition
<b>Don Yard PS</b>	Metrolinx	No – on Metrolinx property
Access Road	Metrolinx	No – on Metrolinx property
Underground Duct Banks	Metrolinx	No – on Metrolinx property
Gantries	Metrolinx	No – on Metrolinx property

### Socio-Economic

The socio-economic effects associated with the electrification undertaking are generally positive for riders and the general public:

- Faster service. Electric trains can accelerate faster and stay at top speed for longer, saving time for riders;
- Reduced congestion. By attracting additional riders, frequent electric train service reduces road congestion;
- A more frequent and reliable service. Electric trains allow for more frequent service, reducing reliance on scheduled trips and increasing the number of available seats;
- Lower operating and maintenance costs. Electric trains have lower operating costs and require less maintenance than diesel trains; and
- Improved local air quality and noise levels. The use of electric trains will reduce the amount of greenhouse gas emissions from rail transport regionally, leading to improved local air quality. Electric trains are also generally quieter than diesel trains, reducing the amount of noise that would otherwise be generated as service increases.

For a detailed assessment of potential effects related to Air Quality, Noise and Vibration, Visual and EMI/EMF, please refer to the following respective reports:

- Air Quality Impact Assessment Report (Appendix F), Noise/Vibration Impact Assessment Report (Appendix G), Visual/Aesthetics Impact Assessment Report (Appendix H), and EMI/EMF Impact Assessment Report (Appendix J).

### Short Term Construction Phase Impacts

- Construction activities associated with the Electrification project are anticipated to be temporary, short-term and localized in nature. There is the potential for minor, temporary effects on land use during construction due to construction staging areas, equipment storage areas, etc. that may be required as well as short term nuisance effects on nearby residents (e.g., dust, traffic, noise, and vibration) however, these effects will cease once construction has finished.
- Mitigation measures related to reducing short term air quality and noise/vibration effects on nearby receptors have been outlined in the Noise and Vibration Modelling Reports contained in Appendix G.

- Potential effects to sensitive facilities resulting from the construction of the electrification components (e.g., OCS, bridge modifications) may include nuisance effects such as noise, vibration, and temporary traffic effects (e.g., temporary detours); however, these effects will cease once construction has finished.

**For additional more detailed information, please refer to the Land Use and Socio-Economic Impact Assessment Report contained in Appendix E (which is organized by rail corridor for easy reference).**

## **Mitigation Recommendations**

- As Crown Agencies, Metrolinx and Hydro One are not subject to municipal approvals. However, further coordination (which may include a series of meetings, discussions, and agreements) with local municipalities will be undertaken during detailed design to finalize design details and minimize any conflicts on adjacent uses to the extent possible;
- Discussions with the City of Toronto and Town of Aurora during detailed design with regard to the location of trails and trail crossings along the Union Station Rail Corridor (Don Trail and Martin Goodman Trail) and Barrie Corridor (West Toronto Rail Path and Town of Aurora Detailed Trails Plan);
- Metrolinx will monitor ongoing updates to the Greenbelt Plan with regard to the proposed location of the Don Yard Paralleling Station to ensure conformity and compliance is maintained; and
- Proper fencing should be erected around all work areas prior to commencement of any earth moving, clearing or construction activities in order to prevent encroachment on adjacent properties. Fencing should remain for the duration of the work, and be periodically inspected to ensure it is in good repair.
- Implement the mitigation recommendations outlined in the following respective reports during detailed design and construction to reduce adverse effects on socio-economic receptors: Air Quality Impact Assessment Report (Appendix F), Noise/Vibration Impact Assessment Report (Appendix G), Visual/Aesthetics Impact Assessment Report (Appendix H), and EMI/EMF Impact Assessment Report (Appendix J).
- Staging options should be developed to minimize potential effects on local access and travel patterns where possible. A Traffic Management Plan will be developed prior to construction.

## **Next Steps/Future Work**

- If additional property acquisition is identified through detailed design, Metrolinx will obtain all easements/property acquisitions from public/private property owners that are required to implement the project in accordance with Metrolinx's approved property acquisition process.
- There is potential for the Don Yard PS to affect the re-designation of Don River lands as Greenbelt. While there is no guarantee that these lands will be included into the Greenbelt or if the buffer would reach the proposed Don Yard site, this should be monitored as the project progresses.
- Future coordination and consultation will be undertaken with the City of Vaughan during detailed design of the Maple PS as it relates to the location of the Block 27 Secondary Plan area.
- Communication with stakeholders during the detailed design and construction phases to ensure that local businesses and properties owners are aware of construction scheduling and that staging options can be developed to minimize impacts to local access and travel patterns to the extent possible.
- Proper fencing should be erected around all work areas prior to commencement of any earth moving, clearing or construction activities in order to prevent encroachment on adjacent properties. Fencing should remain for the duration of the work, and be periodically inspected to ensure it is in good repair.