

EXECUTIVE SUMMARY

Introduction and Proposed Undertaking

Hydro One Networks Inc. (Hydro One) is proposing to construct a new Transformer Station (TS), to be located near the Town of Highgate in the Municipality of Chatham-Kent. This facility is needed to maintain service in the Municipalities of Chatham-Kent and West Elgin and surrounding areas.

The proposed TS project falls within the definition of the projects covered by the *Class Environmental Assessment Document for Minor Transmission Facilities* (Class EA) which is approved under the *Ontario Environmental Assessment Act (EA Act)*.

This Environmental Study Report (ESR) has been prepared in compliance with the requirements of the *EA Act* and it describes the Class EA process that has been carried out for this project.

Project Need and Schedule

The existing electrical distribution infrastructure in the Municipalities of Chatham-Kent, West Elgin and surrounding areas is outdated and inadequate to supply the current and future needs for electrical service in the area. The existing transformer facilities serving this area, St. Thomas TS and Kent TS, have been in-service for many decades and St-Thomas TS is at end of life. The present configuration has limitations and issues due to long distribution feeders (45km): voltage issues, degraded reliability due to long exposure, and inability to transfer loads from Kent TS to St-Thomas (since St-Thomas is a 3-wire and Kent is a 4-wire system). The 115kV circuit which currently supplies St-Thomas requires relief, and the new station would allow transfer of the load from the 115kV to 230kV circuits. The new station will also reduce distribution losses. Notwithstanding the strong technical need, the TS would also serve to provide an additional connection point on Hydro One's Transmission grid to facilitate the connection of renewable energy projects as mandated by *The Green Energy Act*. The *Act* was recently passed by the Ontario Government and seeks to help ensure Ontario's green economic future.

An upgraded electrical supply system is essential to maintain reliable service to homes and businesses in the area.

Contingent upon the successful completion of the Class EA process, detailed engineering will be completed and construction will commence in April 2010 and the TS would be in-service by June 30, 2011. The existing St. Thomas TS may be decommissioned at some point in the future.

Identification and Assessment of Transformer Station Sites

At the outset of the study, the technical specifications and system requirements for the new proposed electrical facilities were determined. Criteria and indicators were established to assist in the identification of alternative sites and the selection of the preferred site. The boundaries of the study area were delineated after taking into consideration the environmental, socio-economic, and technical constraints. The study area identified for this project lies within the Municipality of Chatham-Kent and the Municipality of West Elgin.

Preferred Transformer Station Site

Biophysical, socio-economic and technical criteria were established and alternative sites were evaluated using these criteria. After thorough analysis, the Duart TS location was selected as the preferred TS site because it meets the technical criteria for the project. In addition to being associated with the fewest natural and social environmental effects of any of the alternative sites, it also has a willing seller. Construction on this site is technically feasible and can be completed in time to meet the project need date.

The draft ESR describes potential short term and long term environmental effects and proposed mitigation measures related to the construction of the proposed Duart TS on the preferred site.

Public and Agency Consultation

Since May 2007, Hydro One has conducted extensive public and government agency consultations to inform stakeholders about the project, as well as to identify and mitigate potential concerns. Provincial ministries, agencies, county and local municipalities and

Conservation Authorities were consulted by way of meetings, and written or telephone communication. Hydro One also met with the officials from the Municipality of Chatham-Kent and Municipality of West Elgin prior to notifying the public of the Class EA and holding the first Public Information Centre (PIC).

Two PICs were held for this project; in June 2007 and in April 2009. The local community and key interest groups were notified about the project and the PICs by way of admail, newspaper advertisements and direct mail.

A dedicated project contact was assigned and a toll-free inquiry line was available for those who wished to call to obtain further information on the project or to offer their comments. A project webpage was also created on Hydro One's website to keep the public and stakeholders informed about the status of the project.

60-day Public Review and Comment Period

After the second PIC, Hydro One prepared this Draft ESR and it is being made available for public review and comment for 60 calendar days, from June 25, 2009 to August 25, 2009. During the review period, comments and issues from stakeholders and the public regarding the proposed project will be received and addressed. Both the issues raised by the stakeholders and Hydro One's responses will be documented and summarized in a Final ESR. Any request to elevate or "bump-up" this Class EA to an Individual Environmental Assessment (Individual EA) along with Hydro One's response, will also be included in the Final ESR. The Final ESR will be filed with the Ministry of the Environment (MOE).

Hydro One will fully comply with the requirements of the Class EA process. Hydro One will proceed with the undertaking as outlined in the Final ESR incorporating input from the public, municipalities, and agencies. Hydro One will seek all regulatory approvals, licenses, and permits required for the proposed project.