

**To:** Board of Directors  
**From:** Gary McNeil  
*Managing Director, GO Transit*  
Leslie Woo  
*Vice President, Policy and Planning*  
**Date:** February 19<sup>th</sup>, 2010  
**Re:** GO System Electrification Study Update

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## **RECOMMENDATIONS**

This report is submitted for information purposes

### **1.0 Background:**

On May 26<sup>th</sup> 2009, Metrolinx announced its intent to undertake a study of the electrification of its entire GO Transit rail system as a future alternative to diesel trains currently in service. Policy and Planning is co-leading the Study with GO Transit Corporate Infrastructure.

This study is to be significantly more comprehensive and detailed than a traditional cost benefit analysis, including an examination of the economic, social, environmental, health, and technological factors for the diesel, electric and other alternative technologies.

The Study Terms of Reference were approved by the Metrolinx Board on October 20, 2009 and the RFP was issued to retain a consultant to undertake the study. The RFP closed on November 26<sup>th</sup>, 2009.

As a result of the Community Advisory Committee's efforts to outline an ambitious and comprehensive scope of the work, the quality of the submissions to the Request for Proposals for this study was exceptionally high. Metrolinx received nine substantive proposals and interviewed all proponents prior to making the decision. After interviewing all proponents the joint venture team of Delcan Corporation and Arup Canada Inc. was retained to undertake the Electrification Study.

The Delcan + Arup Joint Venture team is structured to address the study's challenges and requirements, and to provide Metrolinx with local knowledge and experience. The study team, including the sub-consultants, possesses the broad expertise to consider the economic, social, environmental, operational, health and technological costs and benefits of conventional and potential future rail system technologies.

The team includes the following sub-consultants and their respective roles within the project :

- Lura Consulting – community and stakeholder engagement & communications
- Steer Davies & Gleave (SDG) – assessment framework; planning & modelling
- LTK Engineering Services – vehicle technologies
- CANAC Railway Services Inc – operations and maintenance

- RWDI Air Inc - air quality, noise and vibration measurement
- LGL Ltd. - natural environment assessment
- Golder Associates – contaminant potential, archeological assessment, geotechnical assessment
- DPRA Canada - social impact assessment
- Economic Development Research Group (EDR Group) - economic impact analysis;
- InterVISTAS - risk analysis.

Milestones for the fourth quarter of 2009/10 include:

- Delcan+Arup Joint Venture retained and started work on January 4<sup>th</sup>, 2010
- Work plan finalized
- Stakeholder Engagement and Communications Plan completed. An overview is provided in Appendix A.
- Decision Making Framework completed.

The project methodology, as recommended by the consultants, has been divided into five phases:

**Phase I:** Project initiation (January 2010)

**Phase II:** Objectives, Baseline Conditions, Pre-screening criteria (late January – late March).

**Phase III:** Development of up to a maximum of 16 technology/corridor/network scenarios (late March – late June).

**Phase IV:** Scenario screening and short-listing of scenarios (mid June – mid September).

**Phase V:** Detailed assessment, findings and conclusions, business case (mid October – late December)

### Public / Stakeholder Consultations

A stakeholder communication and consultation plan for the Study has been developed and is attached as Appendix A

### **2.0 Financial Implications:**

The costs of undertaking the study is included in the 2010/11 budget.

### **3.0 Interrelationships:**

Metrolinx has undertaken a Benefits Case Analysis (BCA) for one of the top 15 priority projects, the Express Rail on the Lakeshore line from Hamilton to Oshawa. This analysis will be an additional input to the Electrification Study.

Metrolinx is studying the issue of future track and platform capacity at Union Station within the next 10 and 25 years. This study will seek ways to address the capacity improvements required for the Union Station to accommodate future planned service.

Metrolinx continues to enhance its modeling and forecasting capabilities. This ongoing work will allow Metrolinx to provide more detailed ridership forecasts for the electrification study. It will build on ridership forecasts and assumptions from The Big Move.

#### **4.0 Communications:**

The announcement of the consultants has been posted on the Metrolinx Electrification Study micro-site.

#### **CONCLUSIONS AND NEXT STEPS**

Staff will report back at each Board meeting with an update on the progress of the Electrification Study.

Gary McNeil

Direct Dial: 416-874-5100  
E-mail: gary.mcneil@gotransit.com

Leslie Woo

Direct Dial: 416-874-5943  
E-mail: leslie.woo@metrolinx.com

## **APPENDIX A**

### **GO Electrification Study:**

#### **Stakeholder Engagement and Communications Plan**

**Prepared by Lura Consulting on Behalf of the Delcan-Arup Joint Venture**

### **BACKGROUND – The GO Electrification Study**

On October 20<sup>th</sup>, 2009, the Electrification Study Terms of Reference were approved by the Metrolinx Board and the RFP was issued to retain a consultant to undertake the study. The RFP closed on November 26<sup>th</sup>, 2009. As a result of the Community Advisory Committee's efforts to outline an ambitious and comprehensive scope of the work, the quality of the submissions to the Request for Proposals for this study was exceptionally high.

A joint venture team of Delcan Corporation and Arup Canada Inc. is the successful proponent, with the support from several sub-consultants. Lura Consulting is the study team lead for stakeholder engagement and communications.

In early January 2010, Metrolinx initiated the Electrification Study to examine the economic, social, environmental, operational, health and technological costs and benefit factors for conventional and future diesel and electric technologies. The study will assess future technology options, review the viability of these options in various corridor environments as well as at the network level, and assist Metrolinx in developing a business case for meeting its vision of an integrated multimodal transportation system for the GTHA region.

### **Overview Stakeholder Engagement and Communications Plan**

This Stakeholder Engagement and Communications Plan for the Electrification Study outlines how Metrolinx and the consultant study team will reach out to and engage GTHA stakeholders during the development of the Electrification Study, which is expected to be completed in a year – by the end of 2010.

The Plan has been specifically developed to address the key principles – objective, comprehensive, inclusive and evidence based – that were established for the Electrification Study by Metrolinx, in consultation with a Community Advisory Committee (CAC) which provided substantive guidance to Metrolinx on the terms of reference for the study. The Plan is

also designed to ensure that GTHA stakeholders are provided with the opportunity to contribute focused feedback on key outputs identified by Metrolinx and the CAC for the study, including a comprehensive and detailed analysis of the net costs and benefits for each technology option including:

- Capacity and service impacts, including reliability of service;
- Environmental and health impacts;
- Community and land use impacts;
- Economic impacts; and
- System costs, funding, financing and delivery.

Following this Introduction, the Stakeholder Engagement and Communications Plan consists of seven key sections:

- Section 2: Guiding Principles and Objectives;
- Section 3: Key Stakeholder Audiences for Engagement;
- Section 4: Engagement Mechanisms by Audience;
- Section 5: Communication Tactics to Support Engagement;
- Section 6: Engagement and Communications Tactics by Study Phase; and

## **1.0 Guiding Principles and Objectives**

The following principles and objectives are based on those developed by Metrolinx and the CAC for the Electrification Study. They are proposed to guide development and implementation of the Stakeholder Engagement and Communications Plan, and to provide a basis for ongoing monitoring and evaluation as the Plan is implemented.

### **Guiding Principles**

- **Objectivity:** The study (and associated engagement and communications program) will be conducted through a transparent, step-by-step process, such that study outcomes are traceable and readily understood by stakeholders.
- **Comprehensiveness:** Multiple opportunities for stakeholder participation – including face-to-face meetings and web-based consultation – will be provided during the study, backed by a multi-faced communications program, designed to generate broad awareness of the study and electrification issues and options.

- **Inclusiveness:** The study will strive to engage a broad spectrum of stakeholders – reflecting the ethno-culturally diverse and complex stakeholder environment in the Greater Toronto and Hamilton area – throughout the study process.
- **Evidence-Based:** The study team will provide stakeholders with robust and credible information on electrification options – based on the most up-to-date research and methods – to enable informed participation in the study process.
- **Traceability:** The results of the stakeholder engagement program will be clearly documented and the impact of participant input on decision-making will be demonstrated.

## Objectives

1. To **educate stakeholders** about the study process and electrification options, such that they can provide informed feedback during the study.
2. To **generate broad awareness** of the study and opportunities for participation throughout the study process.
3. To **facilitate constructive input** from stakeholders during the key phases of the study process, in order to inform decision-making and study conclusions.
4. To **document feedback** received through the engagement process and to demonstrate the impact of stakeholder engagement on decision-making and study conclusions.

## **2.0 Key Stakeholder Audiences for Engagement**

The Stakeholder Engagement and Communications Plan includes mechanisms to reach out to and engage a wide range of stakeholders who may be interested in or affected by the Electrification Study. Key stakeholder audiences for engagement in the study include:

- **Former Community Advisory Committee (CAC) members:** – Although the CAC has fulfilled its initial mandate, the 16 members will be invited to continue their participation through stakeholder working groups (see Section 4.0) and other engagement channels.
- **Engaged non-government stakeholders**, including:
  - Environment and health groups (e.g. Canadian Environment Defence Fund)

- Community groups (e.g. Ratepayer groups; Community-based or GO corridor-based advocacy groups)
- Land use and social planning groups (e.g. People Plan Toronto; Ontario Professional Planners Institute)
- Transportation advocacy and commuter groups (e.g., Transport 2000; Clean Train Coalition; transit advocates)
- Business and economic groups (e.g., Boards of Trade; Chambers of Commerce, development industry)
- Academics
  
- **Government stakeholders**, including:
  - Municipalities
    - Municipal associations
    - Regional and area municipal staff
    - Regional and area councillors
  - Provincial government
    - Ontario Ministry of Transportation (lead ministry)
    - Provincial ministry staff with a related interest or mandate (e.g., MTO; OMHLTC; MEI; MOE; MMAH; MF)
    - MPPs
  - Federal government
    - Federal ministry/agency staff with a related interest or mandate (e.g., TC, Infrastructure Canada)
    - MPs
  
- **Industry Service Providers**
  - Rail (GO Transit; VIA; CN; CP; Union Station)
  - Electrical Infrastructure and Supply (Toronto Hydro; OPA; OPG; Hydro One)
  
- **Users/commuters** – riders of the GO system
  
- **General public** – residents of Greater Toronto and Hamilton Area (GTHA) and communities served by the GO system
  - Youth – future users of the GO system
  
- **First Nations** – First nation organizations that must be contacted/consulted under the provincial “duty to consult”

### **3.0 Engagement by Audience**

Specific tools are proposed to engage the above listed key stakeholder audiences in the five phases set out by the consultants' team work plan. These include five phases:

- I. Project initiation, study approach (including engagement and communications plan), high level decision-making framework (January 2010)
- II. Objectives, baseline conditions, pre-screening criteria for technology options (late January – late March).
- III. Alternative technology options and network scenarios (late March – mid September).
- IV. Screening of technology options and network scenarios, short-list of options/scenarios (mid June – mid September).
- V. Assessment of short-list, study conclusions (including phasing and business case) (mid October – late December).

### **3.1 Engaged Non-Government Stakeholders**

***Electrification Stakeholder Working Group*** – A series of up to 4 workshops/working meetings with engaged non-government stakeholders is proposed during Phase II – V of the study.

*Suggested mandate for Electrification Stakeholder Working Group:*

- Act as a sounding board for the study team to share and discuss ideas and findings
  - Provide feedback, critiques and suggestions on proposed study approaches, concepts and materials
  - Participate in discussions on electrification options, including the criteria to be used to evaluate options, the identification of short-listed scenarios, and study conclusions
  - Provide a sense of the broader community's expectations and potential reactions to the study, as well as how these might be addressed
- Proposed meeting schedule and topics:
    - Meeting #1 (Early in Study – Phase II): Orientation on study; Provide feedback on study approach, objectives and pre-screening criteria
    - Meeting #2 – to be confirmed (Phase III): Provide feedback on development of alternative technology options and network scenarios

- Meeting #3 (Mid-Study – likely Phase IV): Provide feedback on short-list of options/scenarios
- Meeting #4 (Late-Study – Phase V): Provide feedback on assessment of short-list and study conclusions

## 3.2 Government Stakeholders and Industry Service Providers

**Municipal and Service Provider Engagement** – A two-pronged approach is envisioned:

- **Electrification Study Briefing:** A briefing session (orientation to the study) is proposed. This meeting would be held in Phase II, and provide an opportunity to introduce the study and study plan.
- **Technical Working Groups:** It is envisioned that ad hoc technical working groups and/or one-on-one meetings will be needed between the study team and specific government and service provider stakeholders to discuss and resolve issue-specific technical matters.

## 3.3 Users/Commuters

**Meetings with GO's Customer Service Advisory Committee** – The proposal is to meet with GO's existing CSAC (which includes representatives from the 7 GO corridors and customer interests) to brief them on the study and seek feedback. Meetings with the CSAC will likely occur early in the study (Phase II) and late in the study (Phase IV or V), and be arranged to coincide with regularly scheduled CSAC meetings, which are held quarterly.

## 3.4 General Public

**Web-based Consultation** – *Online consultation and/or surveys will be available to the general public through the project website. Online questions/surveys will mirror the technical work being done in each study phase and seek feedback from e-consultation participants:*

- Phase II: Feedback on study approach, objectives and pre-screening criteria
- Phase III: Feedback on alternative technology options and network scenarios
- Phase IV: Feedback on short-list of options/scenarios
- Phase V: Feedback on assessment of short-list and study conclusions

**Community Engagement Sessions (to be confirmed)** – Near the end of the study (likely Phase IV – short-list of options/scenarios), it is envisioned that one or more community engagement sessions will be convened to enable broader community feedback on electrification options and scenarios. These sessions may take the form of creative technology option

demonstrations using models or computer simulations or actual electric train technology, with an opportunity for community feedback.

**Community Panel (to be confirmed)** – The Community Panel would involve a recurring survey of up to 1,000 randomly selected and demographically/ethno-culturally reflective residents from throughout the 7 GO corridors.

- The proposal is to survey the panel twice:
  - Survey #1 (Phase II) – objectives, values and screening considerations
  - Survey #2 (Phase IV) – feedback on short-list considerations

**Youth Consultation** – *Elementary and secondary school-based consultations are proposed with youth, as future users of the GO system. It is envisioned that 1 school per GO corridor will be selected to participate in interactive discussions on the study.*

### 3.5 First Nations

Relevant First Nations organizations will be sent a notification letter that the study is commencing and an offer to meet to discuss the study and their involvement.

## 4.0 Communications Tactics to Support Engagement

A substantial education/communications effort is needed to provide clear and accurate information about electrification of rail systems in general and the Metrolinx Electrification Study in particular.

A number of communications tactics and materials are proposed to support the objective to “educate stakeholders about the study process and electrification options, such that they can provide informed feedback during the study.”

- **Study Website** – a “micro” website for the study will be established as part of the overall Metrolinx website. The website will build on the existing GO electrification webpage, provide information about the electrification study and feature an interactive section to enable e-consultation on discussion topics during Phases II – V of the study.

- **One-Window Customer Service Portal** – includes dedicated email address and contact information for use on website and all communications materials; and protocol for receiving, responding to and documenting all study inquiries.
- **Email “Blasts” to Stakeholders/Mailing List** – to publicize the launch of the study, and provide ongoing study updates and information.
- **Updates to Municipal Councillors, MPPs and MPs** – to keep politicians informed about the study process, engagement plans and meetings, and outcomes.
- **Supporting Communications Materials** – to communicate study progress and findings and address electrification issues and options. Materials could be posted on the project website and made available at study consultation meetings (and potentially consultation meetings for other related Metrolinx studies).
- **Use of social media (to be confirmed)** – The potential to use Twitter and Facebook to publicize the study and engagement opportunities (particularly e-consultation will be explored).
- **Project communications in GO stations/trains (to be confirmed)** – The potential to use GO stations and trains as locations/vehicles to publicize the project and feedback opportunities will be explored, including:
  - Use of pixel signs in stations and on trains
  - Distribution of project brochures at GO stations