
Office of the President and Chief Executive Officer

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Date: October 13, 2009

Memorandum to: Board of Directors

From: J. Robert S. Prichard
President and Chief Executive Officer

Re: **Electrification Study**

This matter will be dealt with in Public Session.

Attached is a memorandum from Gary McNeil and Leslie Woo recommending endorsement of the proposed scope of work for an Electrification Study. That memorandum in turn attaches the detailed scope of work.

We have developed this proposed scope of work with the assistance of the Community Advisory Committee (CAC) led by Dan Burns and Pamela Robinson. This has been an excellent process.

At the Board meeting, Gary and Leslie will introduce the matter and then invite Dan to speak to the CAC's work and recommendations. We then invite questions and discussion. At the end of the discussion, we seek the Board's endorsement of our proceeding with an RFP consistent with the recommended scope of work.

The proposed scope of work is being posted publicly simultaneously with distribution of this material to the Board. We will report at the Board meeting on any comments received following the public posting.

To: Board of Directors

From: Gary McNeil
Managing Director, GO Transit

Leslie Woo
Vice President, Policy and Planning

Date: October 20th 2009

Re: GO Rail System Electrification Study

RECOMMENDATION

RESOLVED

THAT the recommendations of the Community Advisory Committee (CAC) (see Appendix A) be part of the GO System Electrification Study Terms of Reference;

AND THAT a Request for Proposals be issued to retain a Consultant to undertake the GO System Electrification Study;

AND THAT the Metrolinx Board formally extend its appreciation to the CAC members for their important contribution to this work.

1.0 Background:

On May 26th 2009, Metrolinx announced that it would be undertaking a study on the feasibility of electrification of the GO rail system to be completed by December 2010.

On July 13th, 2009, the Metrolinx Board approved By-Law #3 establishing the Community Advisory Committee for developing the Terms of Reference for the GO Electrification Study and appointed the members of the CAC. The list of CAC members is found in Appendix B.

Metrolinx's 25 year long-term regional transportation plan, entitled The Big Move, sets out a fast, frequent and expanded regional rapid transit network as a principal element of the plan. The plan includes the establishment of Express Rail and Regional Rail service at speeds and frequencies that could be enhanced by system electrification. One of the goals of The Big Move is to increase transportation choices so as to increase the transit mode share in the GTHA.

GO Transit has been anticipating the advent of electrification in its rehabilitation and expansion investments almost since inception, through its protection of vertical clearances for an overhead catenary system. A series of prior studies have been undertaken to explore the possibility of electrification of aspects of the GO system, primarily focused on the Lakeshore corridor.

More recently, with the undertaking of the Environmental Assessment for the Union-Pearson Air Rail Link and the Georgetown South Corridor, the issue of the applicability and feasibility of electrification has received heightened public interest.

Given the order of magnitude that an investment in electrification would represent, it is prudent to ensure that a comprehensive, system-wide analysis that can facilitate rational evidence-based decision-making is

in place. In recognition of the significance of this Study to the future of the GO rail system, Metrolinx has assigned a dedicated Project Director for the duration of the study.

This Study is unique as it will examine the entire GO rail system and assess the impact of different technologies. The expectation is that the Study is to be significantly more comprehensive and detailed than a traditional cost benefit analysis. The Study shall consider the economic, social, environmental, health, and technological factors for the conventional and future diesel and electric technologies under study.

In addition to the study comprehensiveness, Metrolinx is setting a higher bar with respect to the inclusiveness of stakeholder and external expertise early on in the process and the timeliness of the study completion.

The Study is comprised of two stages:

Stage One: June 2009 to Oct 2009 Study Terms of Reference (ToR) development

Establish Community Advisory Committee

Complete Study ToR

Stage Two: Oct 2009 to Dec 2010 Study Period

Stage One

Stage One is now complete. The CAC that was created to assist with the preparation of the Study Terms of Reference (ToR) has completed its' work. Their advice is attached as Appendix A.

The CAC began meeting in July 2009 and they met every two weeks, concluding their deliberations on October 13th. The CAC was assisted throughout the process by Metrolinx staff and external consulting firm Deloitte. The members of the Committee are listed in Appendix B.

This approach of developing the Terms of Reference with the input from a diverse constituency is unique and the result is a much boarder and more comprehensive study scope.

In addition to the deliberations of the CAC, public consultation was conducted, through an online survey. The consultation provided input and affirmed central streams of study identified by the CAC. A stakeholder workshop was also held to provide further input from a range of interests including: community groups, academia, environmental groups and local electricity distribution companies. Metrolinx, assisted by Deloitte, provided the contextual information on the development of the Terms of Reference and attendees were given time to provide commentary and input on each area of study. This led to a number of suggestions that were provided to the CAC for their consideration. The final recommendations of the CAC received the unanimous support of all committee members.

Stage Two

Once the Study ToR has been approved by the Metrolinx Board, an RFP will be released to retain a consultant to undertake the study. The scope of work recommended by the CAC will compare diesel technology, electric technology and probable alternative technologies. The selected Consultant will work with Metrolinx to refine and further define the technologies to be analyzed and assessed in the Study. The Analytical Elements of the Study will include:

- Technologies, Capacities and Transit Service Impacts;
- Environmental and Health Impacts;

- Community and Land Use Impacts;
- Economic Impacts; and
- System Cost, Funding and Financing.

The Study will include a robust risk assessment related to each technology under study. The Consultant will also be required to complete three implementation scenarios to include the timing, cost, infrastructure requirements, required approvals, and additional studies that would need to be conducted.

The confirmation of a successful consulting team is targeted for November 2009 and the Study is targeted for a December 2010 completion. Upon completion of the Study, the findings will be presented to the Metrolinx Board for consideration.

Public / Stakeholder Consultations

An appropriate public and stakeholder communication and consultation plan for the Study is included in the recommended scope of work and it will be included as part of the Study ToR.

2.0 Recommendations

Metrolinx staff are in agreement with the CAC recommendations and support the integration of these recommendations with the full set of tender documents for the proposed Request for Proposals.

3.0 Financial Implications:

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

4.0 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.

GO is currently in the process of engaging a consultant to determine options to double Union Station's capacity over the next 10 years. A second related study is also being commissioned to address the need to quadruple capacity at Union Station by 2031 as identified in The Big Move.

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.

5.0 Communications:

Pending Board approval of staff recommendations, a press release announcing the upcoming Request for Proposal will be posted on the Metrolinx Electrification Study micro-site and the GO Transit Tender site. Media availability of the CAC Chair and key Metrolinx staff will be organized for the day of the Board meeting.

CONCLUSIONS AND NEXT STEPS

The GO System Electrification Study is a critical next step in the implementation of the Metrolinx regional transportation plan. It is a timely and important step in advancing the expansion of the GTHA regional transit network. In the continuing Metrolinx tradition that values community and stakeholder input, the Community Advisory Committee enhanced and enriched the quality of the work.

Pending approval from the Board, the Metrolinx staff will incorporate the recommended Scope of Work into the Terms of Reference for the Electrification Study.

Staff will report back in December 2009 on the outcome of the Request for Proposals.

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