

To: Metrolinx Board of Directors
From: Gary McNeil
President, GO Transit, Acting President, ARL
Date: February 18, 2011
Re: Purchase of Metrolinx Equipment for the Airport Rail Link - Information Update

RECOMMENDATION

This report is submitted for information purposes only.

EXECUTIVE SUMMARY

That the Board of Directors receive this update with respect to the Board resolution on November 16, 2010 which authorized staff to negotiate and execute a contract with Sumitomo Corporation of America (Sumitomo) for the delivery of up to eighteen (18) Diesel Multiple Units (DMUs) at a price not to exceed CDN \$83 million excluding shipping, handling and taxes. Staff have approved a contract with Sumitomo for a total contract value of US \$75 million, including ARL modifications, capital spare parts, liquidated damages, special tools and contingencies. The contract includes US \$55 million for the minimum order of twelve (12) DMUs, with an option exercisable by Metrolinx for six (6) additional DMUs.

BACKGROUND

In order to have a fixed transportation link between Union Station and Pearson Airport, the two most important transportation hubs in the Greater Toronto Area, new vehicles unique to the operating environment of the airport are required. Currently, there are five million trips between these two destinations and, with the new service it is conservatively forecast that two million of today's trips will be attracted to this new, exciting service. The successful bid for the PanAm Games has accelerated the need for this service to be operational in early 2015. DMU vehicles have been selected which meet the air quality and vehicle performance requirements for this project, and meet the operational start date.

Metrolinx has now closed the contract with Sumitomo for the delivery of twelve (12) DMU vehicles for the Air Rail Link (ARL) service, as well as an option for up to six (6) more vehicles to meet ARL performance needs, as well as for consideration elsewhere on the GO Transit network. These vehicles will primarily be manufactured in North America (the Chicago area), as DMU vehicles and associated components are not manufactured in Canada. There is no defined Canadian Content required for DMUs, as they are not subject to the Ontario Ministry of Transportation's Canadian Content for Transit Vehicle Procurement Policy. Metrolinx will be taking the initiative to work with the manufacturer and rail vehicle industry to attempt to optimize Canadian Content.

Sumitomo Corporation and Metrolinx have concluded negotiations and reached an agreement on the terms and conditions for a Contract, based on the following:

Contract Highlights:

- Contract awarded, including all contract allowances, capital spares, special tools and test equipment, and system support within the approved upset amount, excluding shipping, handling and taxes.
- Total contract price is US \$75 million excluding all applicable taxes which includes the twelve (12) unit order, and a Metrolinx exercisable option for six (6) additional vehicles for GO or ARL use.
- DMU deliveries are to commence in the Fall of 2013, with the balance of the base order of twelve (12) all being delivered by late Summer of 2014.
- Reliability provisions have been established in the contract.
- Vehicle design elements include:
 - Fully compliant with EPA Tier 4 Emission Standards, for diesel engines
 - Ability to convert the vehicle to electric propulsion
 - FRA Tier 1 compliance to allow operation in a mixed-use operating corridor with additional Crash Energy Management features
 - Premium seating for approximately 63 people per DMU (126 per shuttle set)
 - Fully accessible in accordance with Accessibility for Ontarians with Disabilities (AODA) requirements

Conversion to Electrical Propulsion EMU:

As Metrolinx moves forward with the operation of electric trains on the GO system, the possible conversion of the DMU vehicle to an EMU (electric multiple unit) was considered. On the assumption that Metrolinx will proceed with electrification, following the upcoming environmental assessment, Metrolinx will then have a choice to either convert the DMU fleet, or possibly buy EMU vehicles and use the DMU vehicles elsewhere on the GO train network. Maximum flexibility of vehicle choice was retained in the decision to proceed with the DMU purchase.

The proposed Sumitomo DMU Vehicle can be converted to an EMU in the future by replacing the diesel-hydraulic components with electric-propulsion components, as follows:

Removals:

- roof mount radiator
- 24 Volt battery box
- diesel fuel tank
- auxiliary power supply unit
- powerpack including engine and auxiliary components
- mechanical drive components
- fire suppression system

Installation:

- brake resistor on the roof
- pantograph on the roof
- propulsion converter/inverter box with auxiliary power supply unit
- main transformer
- traction motors
- modifications to friction braking system, wiring, electronic controls

BUDGET POSITION

Funds of CDN \$107 million had been allocated for vehicle supply for the ARL. The competitive bid process conducted by SMART in California was highly successful, and resulted in Sumitomo (Nippon Sharyo) bringing forward a very competitive, highly qualified product. The contract value is well below the budget allocation.

ATTACHMENTS

Nil.

Respectfully submitted,

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