



Metro

Los Angeles County
Metropolitan Transportation Authority

One Gateway Plaza
Los Angeles, CA 90012-2952

213.922.2000
metro.net

56

SYSTEMS SAFETY AND OPERATIONS COMMITTEE

JANUARY 17, 2013

SUBJECT: METRO GREEN LINE TRAIN CONTROL EQUIPMENT

ACTION: RATIFY CONTRACT AWARD

RECOMMENDATION

- A. Ratify the award of a firm fixed price contract to Ansaldo STS USA (formerly Union Switch & Signal (US&S)) ("Ansaldo") for the upgrade of the existing solid-state train control equipment for an amount not-to-exceed \$7,867,854.
- B. The Board finds that there is only a single source of procurement for the upgrade of the Metro Green Line (MGL) Train Control Equipment (MicroLok I) to Ansaldo's MicroLok II system. The existing MGL MicroLok I Train Control Equipment is proprietary. The purchase is for the sole purpose of replacing existing equipment already in use. The Board hereby authorizes the purchase of Ansaldo MicroLok II pursuant to Public Utilities Code section 130237.

Requires Two-Thirds Vote

ISSUE

At the December 13, 2012 board meeting, there were an insufficient number of directors to constitute a two thirds vote for this single source procurement. Therefore, the CEO notified the Board that due to the critical and safety sensitive nature of the automatic train protection and train control system, staff would be directed under his authority to immediately proceed with the award and request a ratification from the Board at the January 2013 Board meeting.

DISCUSSION

The Metro Green Line (MGL) is equipped with an Ansaldo MicroLok I train control system. The system controls interlocking and provides automatic train protection and train control; thereby ensuring safe train routing along the entire alignment. This system has been operational from the initial start of the MGL, approximately 17 years ago, but

is no longer supported by the Original Equipment Manufacturer (OEM). The equipment needs to be replaced as it nears the end of its useful life.

Ansaldo is the OEM of the MicroLok II and is the only contractor that can provide the effective and efficient MGL Train Control Equipment. Staff determined that pursuant to Section 11.5. B.2 of the Metro Acquisition Policy and Procedure Manual, it is in the best interest of the MTA to meet its requirements through procurement of the specific equipment, and that Ansaldo is the only source for the specific equipment.

MicroLok I is a subsystem of the MGL automatic train control system that safely routes trains along the alignment. The existing MicroLok system was manufactured by Ansaldo and supplied under the H1100 contract in the mid-1990s. The equipment was Ansaldo's first generation of vital solid-state logic controllers for train control and was not widely used across the United States.

Ansaldo's 2nd generation of logic controllers (MicroLok II) is a direct replacement for the MicroLok I unit and is used across multiple transit and freight agencies worldwide. An evaluation of the MicroLok II system revealed that Ansaldo already owns the application software programs required for operation and the software is easily integrated into the current signal system. No significant new software development is required and connection from old components to new components will be easily performed. Ansaldo also understands how the existing MicroLok I equipment interfaces with other MGL systems, including central control, train-to-wayside communications, and automatic train operation. Interface documentation is already developed. These software and interface capabilities allow Ansaldo to smoothly transition train control equipment replacement. This will enable seamless equipment change out with minimal impact to service. In addition, equipment for protection against lightening strikes will also be incorporated into the train control system.

Other equipment manufacturers are not in a position to provide this plug-and-play approach and would require high-level system/software design and development, an approach that is costly and will impact planned installation schedules. There is also an increased risk of schedule delays and system failures during integration and replacement that may impact service delivery.

DETERMINATION OF SAFETY IMPACT

This automatic train control equipment is essential for safe and on-time service delivery on the MGL system. If equipment replacement is not completed, system operation and maintenance issues may impact vital safety systems and safe system operation.

FINANCIAL IMPACT

The contract amount is \$7,867,854. Funding for this procurement is included in two capital projects: \$2,484,668 is in Project 211016 – MGL Signal System Rehabilitation, cost center 3960 - Rail Transit Engineering, line item 53102 - Acquisition of Equipment,

and \$5,383,186 is in Project 211030 – MGL Signal System Rehabilitation Phase II, cost center 3960 – Rail Transit Engineering, line item 50316 – Professional and Technical Services.

This is a multi-year project. The cost center manager, project manager, and Executive Officer, Wayside Systems will ensure that this contract is managed within the Board approved capital Life of Project (LOP) budgets.

Impact to Budget

The funding for this acquisition will come from the Proposition A 35% Rail Funds. These funds are eligible to be used for rail operating and capital projects. No other sources of funds were considered for this procurement because the Long-Range Transportation Plan has designated Prop A 35% for all rail rehabilitation projects. By proceeding with the replacement of these MicroLok systems the operating costs will remain neutral.

ALTERNATIVES CONSIDERED

The Board may choose not to award this contract. This strategy is not recommended as preventative maintenance is a high priority for the Board and the public.

An additional alternative is not to award this contract and issue a competitive procurement. Due to original equipment manufacturer support issues and significant increases in system/software design, development, and integration that is required if the equipment is replaced by a new manufacturer, this strategy is also not recommended.

NEXT STEPS

Replacement of MicroLok I with MicroLok II will continue in accordance with Wayside Systems equipment rehabilitation program. Phased installation will begin in May 2013 and all MGL locations are expected to be completed by FY17. As locations are upgraded, Metro will retain removed equipment in order to build an inventory of MicroLok I equipment to support continued service until all the equipment has been changed out.

ATTACHMENT

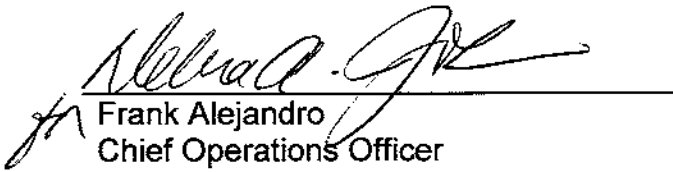
A. Procurement Summary

Prepared by: Aderemi Omotayo, Wayside Systems Manager-Signal
Michael Harris-Gifford, Executive Officer, Wayside Systems

Questions: Michelle Stewart, Assistant Administrative Analyst, Operations
(213) 922-7270



Michelle Lopes Caldwell
Chief Administrative Services Officer



Frank Alejandro
Chief Operations Officer



Arthur T. Leahy
Chief Executive Officer

PROCUREMENT SUMMARY

MicroLok II Replacement Project

1.	Contract Number: OP39602915	
2.	Recommended Vendor: Ansaldo STS USA, Incorporated	
3.	Type of Procurement (check one): <input type="checkbox"/> IFB <input type="checkbox"/> RFP <input type="checkbox"/> RFP-A&E <input checked="" type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: June 27, 2012	
	B. Advertised/Publicized: N/A	
	C. Pre-proposal/Pre-Bid Conference: N/A	
	D. Proposals/Bids Due: August 10, 2012	
	E. Pre-Qualification Completed: In process	
	F. Conflict of Interest Form Submitted to Ethics: 10-4-2012	
	G. Protest Period End Date: N/A	
5.	Solicitations Picked up/Downloaded: N/A	Bids/Proposals Received: N/A
6.	Contract Administrator: Nathan Jones III	Telephone Number: (213) 922-6101
7.	Project Manager: Aderemi Omotayo	Telephone Number: (213) 922-3243

A. Procurement Background

This Board action is for a single source procurement issued in support of the replacement of the Metro Green Line MicroLok I Interlocking and Cab Signal Control System. In June 2012 Metro issued a single source, non-competitive solicitation to Ansaldo STS USA and received a proposal in August 2012.

This RFP was issued in accordance with Metro's Acquisition Policy and the contract type is a Firm Fixed Price.

B. Evaluation of Proposals/Bids

This is a single source procurement. Staff is currently conducting the proposal technical evaluation. To date, several technical fact-finding meetings have been conducted. An initial proposal review has been performed and a final review is to be completed within forty-five days.

C. Cost/Price Analysis

The recommended contractor's price proposal will be evaluated in compliance with Metro's Acquisition Policies and Procedures. Staff will conduct a comprehensive evaluation to determine that the final firm fixed price is fair and reasonable based upon the MASD audit, cost analysis, technical evaluation, and negotiations.

It is anticipated that the technical evaluation and MASD audit will be completed within forty-five days. Upon completion of these tasks, staff will commence negotiations with the goal of finalizing and awarding a Firm-Fixed Price Contract by January 2013.

	Bidder/Proposer Name	Proposal Amount	Negotiated
1.	Ansaldo STS USA, Inc.	\$7,867,854	TBD

D. Background on Recommended Contractor

Ansaldo STS USA, Incorporated, formerly known as Union Switch & Signal, is the original equipment manufacturer of the Metro's existing MicroLok I system. Ansaldo has successfully performed MicroLok I to MicroLok II conversions on several North American freight railroads in recent years, with minimal interference to revenue service operations. Because Metro MicroLok replacement project involves equipment well understood by Ansaldo's engineers, they have indicated that they foresee no difficulty in completing the upgrade project to Metro's satisfaction. Eight of Ansaldo's current senior engineers were involved in the development and application of the original MicroLok I for the Metro Green Line project, and they will lend their expertise to the upgrade project.

E. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) did not establish a Small Business Enterprise (SBE) goal for this solicitation. The Proposer did not list any SBE participation in its proposal. SBE participation is not a condition of award or an issue of responsiveness.