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Metro

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OPERATIONS COMMITTEE
MARCH 15, 2007

SUBJECT: UTILITY METERING SECTION AND RECTIFIER TRANSFORMER

ACTION: AUTHORIZE SINGLE-SOURCE AWARD TO SIEMENS TRANSPORTATION SYSTEMS

RECOMMENDATION

A. The Board finds that there is only a single source of procurement for the needed traction power substation (TPSS) utility metering section and rectifier transformer and purchase is for the sole purpose of duplicating the utility metering sections and transformers already in use. The Board hereby authorizes purchase of the utility metering section and the rectifier transformer pursuant to Public Utilities Code section 130237.

   Requires Two-Thirds Vote

B. Authorize the Chief Executive Officer to award a firm fixed-price contract to Siemens Transportation Systems Inc. for the purchase of a utility metering section and rectifier transformer for an amount not to exceed $250,000, inclusive of sales tax.

ISSUE

Rectifier transformers are a vital, integral subsystem of the AC/DC conversion unit of each rail traction power substation and they are proprietary to the manufacturer of the substation. All rail lines have AC/DC conversion units with rectifier transformers. The design concept and function is the same, however they are not interchangeable. The Red, Blue, Green, and Gold Lines' traction power substations each have their own unique physical and/or electrical characteristics. The metering section houses the utility company's power metering equipment and main breaker. Each utility company imposes its own requirements on the construction of the metering section. The design of this substation metering section is also proprietary to the manufacturer of the substation.

Metro must acquire a new utility metering section and rectifier transformer for one of the four traction power sub-stations acquired through a Betterment Agreement with the Pasadena Blue Line Construction Authority to prepare it for use on the Metro Gold Line Eastside Extension.

Siemens Transportation Systems, Inc is the designer and manufacturer of the Metro Gold Line substations. The replacement metering section and transformer must be compatible

with the existing equipment and must also meet the original design and performance standards. Siemens Transportation Systems, Inc. designed the substation and sold this product to Metro (through the Pasadena Blue Line Construction Authority) to be used specifically on the Gold Line system.

Public Utilities Code section 130237 allows an exception to the general requirement for sealed bidding where there is only a single source of supply and the item is being purchased solely for the purpose of duplicating or replacing an item already in service.

POLICY IMPLICATIONS

Procuring the new metering section and rectifier transformer from the original manufacturer will ensure that the performance of the TPSS is compatible with Siemens' design criteria.

This substation will be installed in the Metro Gold Line Eastside Extension by Eastside LRT Constructors. The terms of the contract modification require a functional substation.

If Metro does not provide a transformer with the correct utility voltage and metering section, there will likely be schedule delays and additional costs to Metro.

OPTIONS

One option is to deliver the substation to Eastside LRT Constructors without procuring the needed modifications. This option is not recommended because it will result in schedule delays and additional costs to the construction of the Metro Gold Line Eastside Extension traction power substations by requiring the design/build contractor to procure the new metering and rectifier transformer.

A second option is to allow for open bidding for the transformer and metering section. This strategy is also not recommended because of the risk that the replacement equipment would not be compatible with the technical requirements of Siemens TPSS design. This strategy will likely also result in schedule delays and additional costs to the Eastside Extension project. Any option that involves another manufacturer carries significant technical risk because this substation was custom-designed for Metro by Siemens Transportation, Inc. Consequently, Metro does not possess the detailed specifications required for a third-party to construct an equivalent unit, and no other manufacturer can ensure full compatibility with the existing substation.

FINANCIAL IMPACT

Funds for this action are included in the FY '07 budget under Cost Center 3910 (Rail Operations), Account Code 50316 (Professional and Technical Services), and Project 300055 (Gold Line).

BACKGROUND

The existing Metro Gold Line has a total of nine Traction Power Substations (TPSS) and is approximately 13.5 miles long. On average, each TPSS supplies electrical power to a one mile section of the railroad to provide power for train operations. The original Gold Line Traction Power Load Flow Study recommended thirteen substations. However, two substations were value-engineered out of the project and only nine substations were constructed. Since thirteen substations are needed to support 3-car trains with 10 minute headway, Metro embarked on a capital project to construct the additional four substations. Due to unavailability of suitable parcels for the final two sites, only two substations will be installed on the existing Gold Line and the other two substations will be provided to the Metro Gold Line Eastside Extension Project in exchange for approximately $2 million in "betterments." The Metro Gold Line Eastside Extension Project has executed a contract modification with Eastside LRT Constructors for Metro to provide two of the substations for installation by the contractor.

One of the two substations that will be provided to the Eastside Extension Project will be installed within the service area of Los Angeles Department of Water and Power (LADWP) and is already properly configured. The second substations will be installed within the service area of Southern California Edison (SCE). However, the substation acquired was configured for use within the service area of Pasadena Water and Power. SCE has different metering equipment requirements and utilizes a different supply voltage than Pasadena Water and Power. The substation must be reconfigured with a new utility metering section and a rectifier transformer for the different incoming voltage rating of SCE.

ATTACHMENTS

A Procurement Summary
A-1 Procurement History
A-2 List of Subcontractors

Prepared By: Kelvin Zan, Senior Engineer
Aida Asuncion, Deputy Executive Officer, Metro Rail Operations
Amy Ly, Contract Administrator

Gerald Francis
General Manager, Metro Rail Operations

Roger Snoble
Chief Executive Officer

BOARD REPORT ATTACHMENT A
PROCUREMENT SUMMARY

UTILITY METERING SECTION AND RECTIFIER TRANSFORMER

1.	Contract Number: DR05801		
2.	Recommended Vendor: Siemens Transportation System Inc.		
3.	Cost/Price Analysis Information:		
	1. Bid Price: $250,000 NTE	Recommended Price: $250,000 NTE	
	B. Details of Significant Variances are in Attachment A-1.D		
4.	Contract Type: Firm Fixed Price		
5.	Procurement Dates:		
	A. Issued: N/A		
	B. Advertised: N/A		
	C. Pre-bid Conference: N/A		
	D. Proposals/Bids Due: N/A		
	E. Pre-Qualification Completed: N/A		
	F. Conflict of Interest Form Submitted to Ethics: February 20, 2007		
6.	Small Business Participation: N/A		
	A. Bid/Proposal Goal: 0% VALP	Date Small Business Evaluation Completed: February 6, 2007	
	Small Business Commitment: N/A - No goal recommended		
7.	Invitation for Bid/Request for Proposal Data:		
	Notifications Sent: N/A	Bids/Proposals Picked up: N/A	Bids/Proposals Received: N/A
8.	Evaluation Information:		
	A. Bidders/Proposers Names: Siemens Transportation Systems Inc.	Bid/Proposal Amount: $250,000 NTE	Best and Final Offer Amount: $250,000 NTE
	B. Evaluation Methodology: Sole Source Procurement Details are in Attachment A-1.C		
9.	Protest Information: N/A		
	A. Protest Period End Date: N/A		
	B. Protest Receipt Date: N/A		
	C. Disposition of Protest Date: N/A		
10.	Contract Administrator: Amy Ly	Telephone Number: 213/922-2632	
11.	Project Manager: Kelvin Zan	Telephone Number: 213/922-3231	

BOARD REPORT ATTACHMENT A-1
PROCUREMENT HISTORY

UTILITY METERING SECTION AND RECTIFIER TRANSFORMER

A. Background on Contractor

Siemens Transportation Systems, Inc. is a division of the Siemens organization, which has been in business over 150 years. Siemens is one of the world's largest suppliers of electrified rail products, systems, and services for public transit agencies around the world. Siemens Transportation Systems, Inc. is the original designer of the substation to be used specifically on the Gold Line system.

Siemens Transportation Systems, Inc. has provided satisfactory service and products to Metro. In addition, they have provided satisfactory services and products to San Diego Trolley Inc, Sacramento Regional Transit, Chicago Transit Authority, San Francisco Municipal Railway and Utah Transit Authority.

B. Procurement Background

A proposal was solicited from the only source of this replacement unit.

The Diversity and Economic Opportunity Department did not recommend a Voluntary Anticipated Level of Minority-Owned and Women-Owned (VALP) participation goal for this procurement.

C. Evaluation of Proposals

A technical evaluation was performed to ensure that the product meets the requirement of SCE utility interface voltage and reduce the risk of incompatible with existing Siemens TPSS design.

D. Cost/Price Analysis Explanation of Variances

The recommended price is determined to be fair and reasonable based upon comparison with other prices for replacement units sold by Siemens. The price Metro will pay will be no greater than that paid by Siemens' most favored customers for orders of similar size when placed under similar terms and market condition.

BOARD REPORT ATTACHMENT A-2
LIST OF SUBCONTRACTORS

UTILITY METERING SECTION AND MAIN RECTIFIER TRANSFORMER

Prime Contractor

SIEMENS TRANSPORTATION SYSTEMS INC.
Rail Electrification Division
300 Oswego Pointe Drive, Suit 106
Lake Oswego, Oregon 97034

Small Business Commitment	Other Subcontractors
N/A	Hyosung Corporation

Total Commitment 0.0%