Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2024-0969, **File Type:** Contract **Agenda Number:** 25.

**OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE
JANUARY 16, 2025**

SUBJECT: BREDA A650 HEAVY RAIL VEHICLE FRICTION BRAKE AIR COMPRESSOR COMPONENT OVERHAUL

ACTION: APPROVE RECOMMENDATION

RECOMMENDATION

CONSIDER:

A. ESTABLISHING a Life of Project (LOP) budget of $23,734,912 for A650 Component Overhaul Phase 2;

B. AUTHORIZING the Chief Executive Officer to award a 60-month firm fixed-price Contract No RR119569000 to Wabtec Passenger Transit (Wabtec) for the component overhaul services of the A650 Heavy Rail Vehicle (HRV) fleet friction brake and air compressor systems for a total not-to-exceed amount of $7,980,914.57 subject to the resolution of any properly submitted protest(s), if any; and

C. AWARDING a sole source procurement, pursuant to Public Utilities Code section 130237, for component overhaul services of the A650 HRV Friction Brake Systems from the Original Equipment Manufacturer (OEM) to Wabtec Passenger Transit.

(REQUIRES TWO-THIRDS VOTE OF THE FULL BOARD)

ISSUE

The A650 HRV fleet requires a friction brake overhaul at the 5-year service interval as defined by the OEM. This ensures the vehicle braking equipment operates within design specifications according to Metro's Corporate Safety and Operations reliability goals while meeting the California Public Utilities Commission (CPUC) vehicle brake rate and stopping distance. The existing friction brake system on the A650 HRV fleet is proprietary, and this procurement is for the component overhaul services of existing equipment already in use. PUC§130237 allows the use of a single supply source for the sole purpose of duplicating or replacing equipment, material, or supplies. Wabtec is the OEM of the existing friction brake system and possesses rights and control over proprietary data, supplies, and equipment necessary to ensure the full operational capability of its friction brake system. Therefore, Wabtec is the only recommended contractor for this single-source procurement. This procurement is

for the overhaul of friction brake equipment to both the base-buy and option-buy fleets consisting of fifty-four (54) kits, including spares. This is the 5th cycle overhaul.

Execution of the friction brake and air compressor overhaul will ensure that the A650 HRV fleet remains in a continuous State of Good Repair (SGR) while safeguarding passenger safety, vehicle reliability, and equipment longevity. This contract is the first of multiple procurements currently in progress for A650 Component Overhaul Phase 2, including a coupler, new collector shoe assembly, GTO, and gearbox overhaul.

BACKGROUND

The Breda A650 Heavy Rail Fleet consists of 100 married-pair vehicles, 26 base-buy married pairs, and 74 option-buy married pairs. It has a combined 31 years of reserve service operations and 168 million cumulative fleet miles.

The Option-buy fleet is currently undergoing a Component Overhaul Program under existing Capital Project #214007. This program includes five major vehicle systems: friction brake and air compressor, traction motor, gearbox, semi-permanent drawbar, and replacement of low-voltage power supply (LVPS) with an updated design. Separate from the LVPS project, the remaining four overhaul projects range from 84% to 92% completion. These projects are expected to be completed by the end of 2024.

This request is for the Metro Board to approve the next cycle friction brake and air compressor overhaul, gearbox, and coupler replacement on both fleet types and establish an LOP budget for A650 Component Overhaul Phase 2.

DISCUSSION

The A650 HRV fleet friction brake equipment overhaul is performed to ensure continued passenger safety and performance. The HRV friction brake equipment is overhauled every five years as defined by the OEM and monitored by the CPUC.

The friction brake and air compressor overhaul consists of serval components, including electrical, mechanical, and pneumatic component parts, subject to normal wear and tear and, in some instances, replaced with new parts resulting from obsolescence.

Routine maintenance and periodic overhauls of this equipment are critical for the vehicle operator and Metro's passengers. Safety is of the utmost importance, and ensuring the HRV will stop in all service modes, including emergency braking, is of the utmost importance.

Metro's Transit Vehicle Engineering developed overhaul statements of work and technical specifications for all systems included in friction brakes based on OEM recommendations and RFS maintainability experience. Upon contract award, the Contractor will overhaul and test the friction brake equipment in accordance with the technical specifications, safety and reliability requirements, and within the RFS production schedule.

A650 Component Overhauls Phase 2

This contract represents the first of multiple component overhaul efforts required to keep the A650 fleet in a State of Good Repair. Separate contracts for additional required overhauls are currently in various stages of development and solicitation, with contract awards for coupler, collector shoe, GTO, and gearbox components expected during FY25. Staff seeks Board approval of a $23,734,912 LOP budget for A650 Component Overhauls Phase 2.

DETERMINATION OF SAFETY IMPACT

Safety is of the utmost importance to Metro's passengers and employees. Therefore, it is necessary to maintain the A650 HRV fleet friction brake equipment without deferred maintenance while meeting Transit Asset Management Federal guidelines on equipment State of Good Repair (SGR). The friction brake equipment is a vital system that provides the means to stop the vehicle during in-service operations and emergency braking modes.

FINANCIAL IMPACT

This action will establish a $23,734,912 LOP budget for A650 Component Overhauls Phase 2 and award Wabtec a firm-fixed-price contract for overhauling the friction brake and air compressor systems. As agency procurement guidelines require, contracts for other component overhauls included in Phase 2 will be brought to the Board separately for approval.

Since this is a multi-year project, the Component Overhaul Superintendent, Division Director, and Senior Executive Officer of Rail Fleet Services will ensure that the balance of funds is budgeted in future years. The Project Manager and Cost Center Manager will be responsible for budgeting for costs in future years.

Impact to Budget

Funding for this action will consist of Federal, State, and Local funds as they become available, some of which will be eligible for operations. Staff will apply for grant funds, which will be allocated based on grant approval.

EQUITY PLATFORM

Board approval will ensure that Metro's A650 HRV fleet remains in a constant state of good repair while providing vital transportation services throughout the City and County of Los Angeles via B and D lines, inclusive of many Equity Focus Communities (EFC) where disparities may exist in providing residents access to jobs, housing, education, health, and safety. The A650 HRV fleet operates in areas served, including Union Station to Downtown LA, Koreatown (Wilshire/Western), Hollywood, Universal City, and North Hollywood, most of which serve people living in EFCs.

Based on the 2019 Customer Survey, the Red and Purple heavy rail lines serve the following ridership:

- 27.7% below the poverty line.
- 56.4% had no car available.
- Rider Ethnicity: Latino 38.9%; Black 13.1%; White 25.8%; Asian/Pacific Islander 15.2%; Other 6.5%.

Attachment B shows that Wabtec made a 1.11% Disadvantaged Business Enterprise (DBE) commitment for this OEM contract.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Approval of the A650 Friction Brake Overhaul supports Strategic Goal 1): Provide high-quality mobility options that enable people to spend less time traveling. This overhaul program ensures sustained fleet reliability, including safe, accessible, and affordable transportation for Metro's heavy rail vehicle (subway) riders.

The recommendation supports Metro Strategic Plan Goal 5) Provide responsive, accountable, and Trustworthy governance within the Metro organization. Contract Modification Authority and Contract extension safeguard production continuance while reliably meeting passenger safety and fleet needs.

ALTERNATIVES CONSIDERED

Deferral of this overhaul is not recommended as the friction brake equipment and systems are integral components of the operations and braking that, if not properly maintained, could result in equipment failures, service delays, and risk to passenger safety. Due to the significance of the friction brake systems overhaul, there are no alternatives to be considered.

NEXT STEPS

Upon Board approval, the friction brake system overhaul will commence according to stakeholders' mutually agreed production schedules.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - DEOD Summary
Attachment C - A650 Expenditure and Funding Plan

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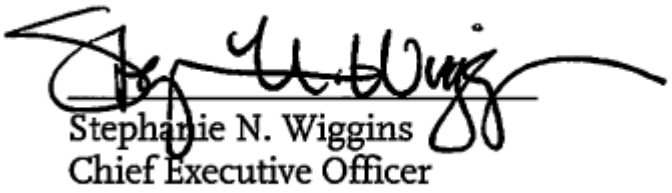

PROCUREMENT SUMMARY

BREDA A650 HEAVY RAIL VEHICLE FRICTION BRAKE AIR COMPRESSOR COMPONENT OVERHAUL

1.	**Contract Number**: RR119569000	
2.	**Recommended Vendor**: Wabtec Passenger Transit, A Division of Wabtec Corp.	
3.	**Type of Procurement (check one):** ☐ **IFB** ☒ **RFP** ☐ **RFP–A&E** ☒ **Non-Competitive** ☐ **Modification** ☐ **Task Order**	
4.	**Procurement Dates**:	
	A. Issued: 01-02-2024	
	B. Advertised/Publicized: N/A	
	C. Pre-Proposal Conference: N/A	
	D. Proposals Due: 06-07-2024	
	E. Pre-Qualification Completed: 02-20-2024	
	F. Ethics Declaration Forms submitted to Ethics: 02-14-2024	
	G. Protest Period End Date: 01-22-2025	
5.	**Solicitations Picked up/Downloaded**: 1	**Bids/Proposals Received**: 1
6.	**Contract Administrator**: Jessica Omohundro	**Telephone Number**: (213) 922-4790
7.	**Project Manager**: Richard Lozano	**Telephone Number**: (323) 224-4042

A. Procurement Background

This Board Action is to approve the award of Contract No. RR119569000 to transport, inspect, overhaul, and test fifty-four (54) A650 friction brake and air compressor overhaul kits in support of Metro's A650 Heavy Rail Vehicle (HRV), subject to the resolution of any properly submitted protest(s), if any. The existing friction brake system on the Breda A650 rail cars was designed and built by Wabtec Passenger Transit, the original equipment manufacturer (OEM). It was determined by Metro's engineering and operations team that Wabtec Passenger Transit possesses rights and control over proprietary data, supplies, and equipment necessary to ensure full operational capability of their friction brake system. Therefore, the overhaul of the A650 friction brakes and air compressor must be overhauled by the original equipment manufacturer (OEM), Wabtec Passenger Transit. Wabtec made a 1.11% Disadvantaged Business Enterprise (DBE) commitment for this OEM contract.

The non-competitive Request for Proposal (RFP) was issued on January 2, 2024, in accordance with Metro's Acquisition Policy and the contract type is a Firm-Fixed-Price.

Two (2) amendments were issued during the solicitation phase of this RFP:

- Amendment No. 1, issued on January 18, 2024, revised critical dates, and extended the proposal due date.
- Amendment No. 2, issued on May 17, 2024, requested Best and Final Offer (BAFO) on their Good Faith Efforts for DEOD to review.

- Best and Final Offer (BAFO) issued on November 13, 2024.

B. Evaluation of Proposal

This non-competitive procurement is consistent with Public Utility Code § 130237 for the duplication or replacement of existing equipment already in use. The proposal was evaluated in compliance with Metro's Acquisition Policy and Procedures.

A Proposal Evaluation Team (PET) consisting of Metro staff from Transit Vehicle Engineering and Rail Fleet Services performed a comprehensive technical evaluation. The technical evaluation consisted of reviews of the Proposer's key personnel, project management, quality assurance and work plans. The proposal was found to be technically acceptable and in compliance with the requirements of the RFP.

C. Cost Analysis

In accordance with Metro's Acquisition Policy and Procedures for a non-competitive acquisition, a cost analysis is required. The recommended proposal price has been determined to be fair and reasonable based upon a cost analysis, technical evaluation, Independent Cost Estimate (ICE), discussions and negotiations.

Proposer Name	Proposal Amount	Metro ICE	Negotiated Amount
Wabtec Passenger Transit	$8,077,667.22	$6,517,800.00	$7,980,914.57

The Contract Administrator led discussions with Wabtec to address questions and get clarification on their proposed work plan, scope of work, level of effort, and proposed price. Following these discussions, Wabtec made price and technical adjustments and submitted a Best and Final Offer (BAFO) which included a reduced proposal price in the amount of $7,980,914.57.

The negotiated BAFO price represents a 12% reduction from the initial proposed amount, however, it is still 22.4% higher than the ICE. This difference is attributed to several key factors that were not fully considered in the ICE. There are two contributing factors that make up most of that difference:

1. System obsolescence – Wabtec included additional engineering costs required to upgrade and retrofit current updated component technology to the existing obsolete system. The ICE did not include these component upgrades, which account for approximately 9.7% of the overall difference.
2. Risk Contingency – Metro's overhaul specification is intended to cover all items found to be worn, damaged, defective, or otherwise requiring replacement. The primary driver of the increased costs is the expanded scope of work. Previous contract was limited to specific overhaul tasks. The enhanced scope brings additional responsibilities, requiring increased resource allocation, labor, and material costs. This, along with component obsolescence, creates financial

risk that the ICE did not account for. This risk contingency factor accounts for approximately 3.0% of the overall difference.

Factoring these elements into the analysis, the difference between the ICE and the negotiated amount is reconciled to approximately 9.7% which is the best attainable, fair and reasonable price.

D. Background on Recommended Contractor

The recommended firm, Wabtec Passenger Transit, a division of Wabtec Corp, is a leading global provider of equipment, systems, digital solutions, and value-added services for the freight and transit rail sectors. With over 150 years of experience, they are leading the way in safety, efficiency, reliability, innovation, and productivity in over 50 countries around the world.

DEOD SUMMARY

BREDA A650 HEAVY RAIL VEHICLE FRICTION BRAKE AIR COMPRESSOR COMPONENT OVERHAUL / RR119569

A. Small Business Participation

Wabtec Passenger Transit made a 1.11% Disadvantaged Business Enterprise (DBE) commitment for this non-competitive Original Equipment Manufacturer (OEM) solicitation, which is the commitment of record that will be monitored through the life of the contract.

Small Business Commitment	**1.11% DBE**

	DBE Subcontractors	**Ethnicity**	**% Committed**
1.	Mai's Supply and Service	Asian Pacific American	0.46%
2.	Celestial Freight Solutions	Hispanic American	0.65%
		Total Commitment	**1.11%**

B. Local Small Business Enterprise (LSBE) Preference

The LSBE preference is not applicable to federally funded procurements. Federal law (49 CFR § 661.21) prohibits the use of local procurement preferences on FTA-funded projects.

C. Living Wage and Service Contract Worker Retention Policy Applicability

The Living Wage and Service Contract Worker Retention Policy is not applicable to this contract.

D. Prevailing Wage Applicability

Prevailing wage is not applicable to this contract.

E. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract. PLA/CCP is applicable only to construction contracts that have a construction related value in excess of $2.5 million.

ATTACHMENT C

A650 EXPENDITURE AND FUNDING PLAN

Use of Funds	Total	FY26	FY27	FY28	FY29	FY30+
Friction Brake, HPT, and Air Compressor Overhaul	$9,417,330	$1,569,555	$2,092,740	$2,092,740	$2,092,740	$1,569,555
Coupler Overhaul	$4,459,320	$743,220	$990,960	$990,960	$990,960	$743,220
GTO Module Overhaul	$1,945,800	$1,297,200	$648,600	-	-	-
Collector Shoe Replacement	$1,295,470	$219,465	$292,620	$292,620	$292,620	$198,145
GE Gearbox Overhaul	$5,541,992	$831,299	$1,662,598	$1,662,598	$1,385,498	-
Other Professional Service	$1,075,000	$215,000	$215,000	$215,000	$215,000	$215,000
Total LOP Budget	**$23,734,912**	**$4,875,739**	**$5,902,518**	**$5,253,918**	**$4,976,818**	**$2,725,920**
Source of Funds						
Federal/State/Local funds as they become available	$23,734,912	$4,875,739	$5,902,518	$5,253,918	$4,976,818	$2,725,920
Total LOP Funding	**$23,734,912**	**$4,875,739**	**$5,902,518**	**$5,253,918**	**$4,976,818**	**$2,725,920**

RAIL FLEET SERVICES

A650 Heavy Rail Vehicle Friction Brake Air Compressor Component Overhaul

Metro

Operations, Safety, & Customer Experience Committee Meeting
January 16, 2025

RECOMMENDATION

A. ESTABLISHING a Life of Project (LOP) budget of $23,734,912 for A650 Component Overhaul Phase 2;

B. AUTHORIZING the Chief Executive Officer to award a 60-month firm fixed-price Contract No RR119569000 to Wabtec Passenger Transit (Wabtec) for the component overhaul services of the A650 Heavy Rail Vehicle (HRV) fleet friction brake and air compressor systems for a total not-to-exceed amount of $7,980,914.57 subject to the resolution of any properly submitted protest(s), if any; and

C. AWARDING a sole source procurement, pursuant to Public Utilities Code section 130237, for component overhaul services of the A650 HRV Friction Brake Systems from the Original Equipment Manufacturer (OEM) to Wabtec Passenger Transit.

(REQUIRES TWO-THIRDS VOTE OF THE FULL BOARD)

Metro

ISSUE & DISCUSSION

ISSUE

The A650 Heavy Rail fleet consists of 100 vehicles requiring friction brake overhaul every 5-years as defined by the original friction brake manufacturer. This is the 5th cycle overhaul for this equipment by the OEM safeguarding passenger safety to the original manufacturer's design criteria, and vehicle reliability ensuring the A650 fleet remains in a continuous State of Good Repair.

DISCUSSION

This procurement is for the overhaul of friction brake equipment replacing worn and expired parts as well as including comprehensive testing thereby ensuring the friction brake system operates in all service modes including emergency braking applications. The friction brakes are a safety critical system.

Metro

CONTRACT AWARD

AWARDEE

Wabtec Passenger Transit (Wabtec)

NUMBER OF BIDS

1 (Sole Source)

DEOD COMMITMENT

1.05% DBE

Metro