



**SFMTA**  
Municipal  
Transportation  
Agency

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**July 29, 2014**

**The Honorable Members of the Board of Supervisors  
City and County of San Francisco  
1 Dr. Carlton Goodlett Place, Room 244  
San Francisco, CA 94102**

***Subject: Request for Approval -- SFMTA Contract No. 2013-19 with Siemens Industry, Inc. to Procure up to 260 New Light Rail Vehicles***

**Honorable Members of the Board of Supervisors:**

The San Francisco Municipal Transportation Agency (SFMTA) requests that the San Francisco Board of Supervisors approve a contract between the City and County of San Francisco and Siemens Industry, Inc., to procure up to 260 Light Rail Vehicles (LRVs), associated services, spare parts, special tools, training and documentation, in an amount not to exceed \$1,192,651,577, and for a term not to exceed 15 years.

**Background**

The SFMTA has a fleet of 151 LRVs. These vehicles went into service beginning in 1996 and are scheduled for retirement starting in 2021. The SFMTA is seeking to procure up to 260 new light rail vehicles to serve all of the Agency's LRV needs for the next 25 years, including fleet replacement, Central Subway and Mission Bay/Third Street corridor needs, and other projected ridership increases through 2040.

**Bid Process**

This procurement followed a two-phased approach to select a contractor after an extensive outreach process to solicit interest in this procurement. The procurement was designed to select a car builder who can deliver quality cars to SFMTA on schedule and at the best value for SFMTA. The process applied lessons learned from recent procurements and from experience with the existing fleet to assure that the new fleet is safe, reliable and cost effective to maintain.

In March 2013, the SFMTA issued a Request for Qualifications to pre-qualify car builders who were eligible to receive the Request for Proposals (RFP). Four car builders submitted Statements of Qualifications, and all four were deemed eligible to receive the RFP.

In September 2013, the SFMTA issued the RFP to the four qualified car builders and received proposals from two car builders, Siemens Industry, Inc., and CAF USA, in February 2014. The selection panel scored the submittals and determined that Siemens was the highest-ranked proposer.

The Siemens proposal demonstrated superiority over the CAF proposal in the following respects:

- Stronger technical proposal, offering higher reliability and exceeding requirements of the Specifications
- Proven, well documented approach to project management and quality assurance
- Single, Sacramento-based location for project management, engineering and design, carshell manufacture, final assembly and post-delivery support
- Financially stable parent company, offering parent company guarantee and financing to support the procurement
- Proven history of on-time performance, committed to beating the required delivery schedule
- Offered alternate approaches to improve the performance, reliability and efficiency of the project, from both a technical standpoint and based on commercial/financial considerations
- Significantly lower price – Siemens proposed \$ 3.34M per vehicle versus CAF's price of \$4.21M, not including contract non-recurring costs.

### **Description of Work**

The planned procurement will provide up to 260 new LRVs, together with associated services, spare parts, special tools, training and documentation. The new LRVs are expected to have a 25-year life, which assumes that the cars will undergo a mid-life overhaul, funding for which was identified as part of the Transportation 2030 process.

The SFMTA requires new LRVs for three purposes:

- (1) 24 LRVs for near-term increased service demand for the Central Subway Project and Mission Bay, and system-wide growth. These vehicles would be scheduled for delivery from 2016 through 2018;
- (2) The replacement of the existing fleet of 151 LRVs, with deliveries projected to start in 2021 and continue through 2028; and
- (3) Up to 85 LRVs to meet additional projected growth in ridership and system capacity expansion needs through 2040. SFMTA estimates that approximately 40 cars of the option will be needed from 2018 to 2020 to cover service demands, and the remaining option vehicles will cover the expansion needs from 2028 to 2040.

The base quantity in the contract will be 175 LRVs. The contract provides that the base amount per car (\$3,327,250) will cover the first 24 LRVs, and contains cost escalation provisions for the remaining cars, considering the prolonged delivery schedule of this fleet. The contract includes a formula for determining escalation, based on separate material and labor manufacturing industry indices. In shorter contracts, the risk of inflation is typically taken by the contractor and is built into the price. The duration of this contract (15 years), however, effectively precluded the proposers from factoring in escalation costs into the price proposed for the vehicles. The proposers would have had to either submit a very high price for each vehicle or not bid at all due to the level of risk.

The technical requirements are set forth in the Technical Specifications, which is performance-based, rather than a prescriptive detailed specification, allowing the carbuilders the flexibility to offer proven technologies, thereby increasing reliability while decreasing costs. The new LRVs will be compatible with SFMTA’s existing light rail system and any planned extensions.

**Alternatives Considered**

The current fleet does not have the capacity to support increased service demand resulting from both the Central Subway extension and future expansion needs identified in recent ridership projections. The alternative considered was to procure only 24 LRVs to serve the immediate need for the service expansion associated with the Central Subway Extension. A second procurement for the replacement of the existing fleet would then be conducted at a later date. However, procurement of only 24 cars, a relatively small quantity of vehicles, would not likely have result in sufficient competition or competitive pricing. In addition, if SFMTA procured a 24-car fleet, that fleet would be different from both the current fleet and the ultimate replacement fleet. Operating two separate fleets for an extended period would cause operation and maintenance challenges, as well as increased costs associated with separate fleets.

**Funding Impact**

The total contract with Siemens Industry, Inc. is a maximum of \$1,192,651,577. This amount includes 175 Central Subway and replacement LRVs, plus options for up to 85 additional LRVs, including all required labor, inspections, engineering, special tools, training, manuals, materials, spare parts, and other equipment specified by the SFMTA. As noted earlier, an escalation allowance is also included. Following is a table showing how the estimated escalation affects the contract price.<sup>1</sup>

	Value	Escalation Allowance	Total
Base 175	\$ 648,632,001	\$ 133,300,188	\$ 781,932,189
Option 40	\$ 161,134,617	\$ 14,920,188	\$ 176,054,805
Option 45	\$ 149,805,495	\$ 84,859,087	\$ 234,664,582
Total	\$ 959,572,113	\$ 233,079,464	\$ 1,192,651,577

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<sup>1</sup> For budgetary purposes, the SFMTA estimated the escalation allowance at four percent annually for materials and labor. Note that the escalation allowance factors in the number of years before the SFMTA would receive the vehicles. In the case of the replacement vehicles, for example, the SFMTA plans on receiving new vehicles as the current vehicles retire, starting in 2021.

## **Financial Plan**

A funding plan for the base contract of 175 LRVs is in place. Funding for the initial 24 expansion cars includes \$26M from the Central Subway Project (FTA, Prop 1B State Bond, Prop K and other funds) and the balance from future SFMTA revenue bonds (subject to approval of the SFMTA Board).

Nearly 80 percent of the funding for the 151 replacement LRVs will come from future FTA formula grant funds programmed by the Metropolitan Transportation Commission (with the remaining 20 percent from local matching funds from a variety of sources, including Prop K and future Revenue Bonds).

Potential funding sources for the 85 Option Vehicles include developer contributions, Transit Impact Development Fees, Transit Sustainability Fees, FTA's Core Capacity Expansion Program, bridge toll funds, SFMTA revenue bonds, general obligation bonds, local vehicle license fees, local sales tax, and/or State funds. The use of SFMTA commercial paper or other gap financing is likely to be required to cover those periods during which budgeted funding is not accessible.

The RFP invited proposers to suggest alternate approaches to financing gaps in vehicle delivery. As an alternate approach, Siemens offered vendor financing to bridge the gap between available funding and vehicle delivery requirements. The Agreement includes a provision to negotiate financing with Siemens if funds can be secured to repay such a loan.

The priority for funding is for approximately 40 option vehicles to be delivered between 2018 and 2021 due to the urgent need to meet service demands. Vendor-provided financing for the 40 option vehicles may be available should the SFMTA determine that such financing is feasible and advantageous to the Agency, with any final financing agreement to be approved by the SFMTA Board of Directors. The option(s) will be exercised only in the event that funding is secured.

## **SFMTA Board Action**

On July 15th, 2014, the SFMTA Board of Directors adopted Resolution No. 14-120, which authorized the Director of Transportation to execute the Contract with Siemens Industry, Inc., to procure up to 260 LRVs, associated services, spare parts, special tools, training and documentation, in an amount not to exceed \$1,192,651,577, and for a term not to exceed 15 years. The Resolution also authorized the Director of Transportation to enter into negotiations with Siemens Industry, Inc. to provide financing for approximately 40 Option vehicles to be delivered between 2018 and 2021 should SFMTA determine that such financing is feasible and advantageous to the SFMTA, with any final financing agreement to be approved by the SFMTA Board.

## **Recommendation**

The SFMTA recommends that the Board of Supervisors authorize the SFMTA to enter into a contract with Siemens Industry, Inc., to procure up to 260 LRVs, associated services, spare parts,

special tools, training and documentation, in an amount not to exceed \$1,192,651,577, and for a term not to exceed 15 years.

Thank you for your consideration of this proposed agreement. Should you have any questions or require more information, please do not hesitate to contact Ms. Trinh Nguyen at (415) 701-4602 at any time.

Sincerely,

A handwritten signature in black ink, appearing to read 'E. Reiskin', written over a light gray circular watermark.

**Edward D. Reiskin**  
**Director of Transportation**

