

## Public Transportation Modernization, Improvement &amp; Service Enhancement Program (PTMISEA)

## Final Project Report

Per G.C. 8879.50 (f)(2) "Within six months of the project becoming operable the recipient agency shall provide a report to the administrative agency . . ." Please provide the following information:

Fiscal Year : PTMISEA-Interest

PTMISEA Cycle :

Project Sponsor : San Francisco Municipal Transportation Agency

Contributing PTMISEA Sponsor : N/A

Project Name : LRV Propulsion System Campaign

## Project Scope

Original Application	Final Project
The LRV Propulsion System Campaign will target critical components in SFMTA's Light Rail Vehicles (LRVs) to improve the reliability of the propulsion system, which in its present condition is responsible for 28 percent of rail-line delays. The campaign will replace subsystems of the propulsion system on 149 Breda LRVs, including the main inverter blower motor, auxiliary power system equipment blower motor, traction motor speed sensor wire harness, traction motor leads car body side, and GTO control board components. The propulsion system is the system that makes the LRV move and there is one propulsion system per LRV. The current propulsion systems have exceeded the manufacturer's recommendation for replacement and exceed their useful lives. The campaign will replace five subsystems of the propulsion system, repair welding, and execute equipment quality assurance inspections.	All subsystems in the propulsion system that were scheduled for replacement have been replaced successfully. This includes the main inverter blower motor, auxiliary power system equipment blower motor, traction motor speed sensor wire harness, traction motor leads car body side, and GTO control board components. These propulsion systems had exceeded the manufacturer's recommended useful life.
Original Approved Project Cost	Final Project Cost
99313 : 99314 : PTMISEA Interest : \$600,000 Other Funds Federal/State : \$4,630,000 Local : Total Project Cost : \$5,230,000	   \$600,000  \$3,889,869  \$4,489,869
Original Project Schedule	Final Project Schedule
Begin Environmental : End Environmental : Begin Design : End Design : Begin Right of Way : End Right of Way : Begin Construction : 10/1/15 End Construction : 12/31/16 Begin Vehicle/Equipment Order : End Vehicle/Equipment Order : Begin Closeout Phase : 1/1/16 End Closeout Phase : 6/30/16	      10/1/15 12/31/16   1/31/17 9/30/17
Anticipated Performance Outcome	Actual Performance Outcome
Replacement of the propulsion system in 149 Breda LRVs and a reduction in rail line delays due to breakdowns of aging equipment.	With the replaced propulsion systems, MUNI LRVs are now breaking down after greater distances. Mean distance between breakdowns is about 2000 miles greater than before. Increased Ridership by 2% Reduced Oper/Maint Cost by 2% Reduced Emissions by 2% Increased System Reliability by 5%

Performance Outcomes  
Description/Improvement  
Percentages

Signature:

Name and Title

Date

8/18/2017

Please include verification of the project completed as scoped by providing evidence of completion such as a photo and/or invoice of acquisition.

Note: The same authority that signed the Allocation Request or is designated on the Authorized Agent form must sign here.