

**Presentation to the Board of Directors  
on  
Rail Fleet Rehabilitation and  
Restoration Programs**

**06 | 07 | 2011 | SAN FRANCISCO, CALIFORNIA**

## BACKGROUND

- FLEET SIZE
  - Light Rail Vehicles (LRV): 151 Breda Cars
  - Historic Street Cars:
    - PCC: 16 (Former-SEPTA)
    - PCC: 11 (Former-NJT)
    - PCC: 5 (Former-Muni)
    - Milan: 9
    - Other Historic Cars: 5 (charter, training, etc)
    - Other PCCs: 47 (in storage – not operating)

## **PROGRAMS**

- LRV Rehabilitation Program:
  - Doors and Steps Reconditioning and Systems Rehabilitation Project – Ansaldo Breda Inc. (ABI)
  - LRV Restoration Project - Ansaldo Breda Inc. (ABI)
- Historic Streetcar Rehabilitation Program:
  - Rehabilitation of 16 PCCs - Brookeville Equipment Company
  - Rehabilitation of Car No. 1 - Brookeville Equipment Company

## **LRV REHABILITATION PROGRAM**

- LRV Doors and Steps Reconditioning and Systems Rehabilitation Project Ansaldo Breda Inc. (ABI)
  - Project Budget: \$72.8 million
  - Contract Amount: \$68.7 million (including Amendment 1)
  - Scope of Work: Rehabilitate Doors & Steps, Air Supply Units, Couplers, Redesign and Replace Articulation Wiring Harnesses, Center Truck PSC2 Wiring Harness, Center Articulation Pins and Traction Motor Bearings
  - Amendment 1 Scope of Work: Complete rehabilitation of 34 car sets of trucks
  - Contract Duration: November 2009 - November 2015
  - Number of Vehicles in Program: 143 LRVs
  - Pilot Car Conditionally Accepted by SFMTA : December 2010
  - Seven rehabilitated vehicles returned to SFMTA; six vehicles are back in service

**LRV REHABILITATION PROGRAM (cont'd)**

- LRV Doors and Steps Reconditioning and Systems Rehabilitation Project– Ansaldo Breda Inc.
  - Contract APT 591, APT 112 and CPT 591 Funding Plan

Project Budget	=	\$ 72.8 million
Funding Source:		
Breda Leaseback Funds	=	\$ 8.5 million
Operating Funds	=	\$ 1.0 million
Formula Funds 5207/5209	=	\$ 20.6 million
AB664 Bridge Toll	=	\$ 1.2 million
I-Bonds PTMISEA	=	\$ 8.9 million
ARRA – APT 591	=	\$ 9.0 million
ARRA – APT 112	=	\$ 12.1 million
Total Available Funds	=	\$ 61.3 million
Funding Shortfall	=	(\$ 11.5 million)
Possible Sources of Funds:		I-Bond and Prop K

**LRV REHABILITATION PROGRAM (cont'd)**



**CARS DISASSEMBLED AND COMPONENTS SENT OUT FOR REBUILD**

**LRV REHABILITATION PROGRAM (cont'd)**



**NEWLY INSTALLED CONNECTORS IN ARTICULATION SECTION**

## **LRV REHABILITATION PROGRAM (cont'd)**

- LRV Restoration Project - Ansaldo Breda Inc. (ABI)
  - Project Budget: \$ 36.0 million
  - Contract Amount: \$ 32.9 million
  - Scope of Work: Restore seven LRVs with frame damage and missing components due to accidents back to serviceable condition
    - Base Contract: Five LRVs
    - Option Contract: Two LRVs
  - Contract Duration: December 2010 – December 2016
  - Vendor is disassembling the vehicles



## LRV REHABILITATION PROGRAM (cont'd)

- LRV Restoration Project – **Funding Plan**

Project Budget = \$ 36.0 million

Funding Source:

Prop K = \$ 2.0 million

Operating Funds = \$ 13.4 million

I-Bonds PTMISEA = \$ 3.8 million

Total Available Funds = \$ 19.2 million

Funding Shortfall = (\$ 16.8 million)

Possible Sources of Funds: Insurance proceeds (\$2.0 million), I-Bond and Prop K

**LRV REHABILITATION PROGRAM (cont'd)**



**PANELS AND SEATS REMOVED FROM AN ACCIDENT CAR**

## **Historic Street Car Rehabilitation Program**

- Complete Rehabilitation of 11 Former-NJT and 5 Former-Muni PCC – Brookeville Equipment Company (BEC)
  - Project Budget: \$21.7 million
  - Contract Value: \$18.7
  - Scope: Most of these vehicles have been out of service for several years and will require extensive rehabilitation of the body (specifically the ex-Muni cars) and all mechanical and electrical systems.
  - Contract Duration: October 2009 – October 2014
  - Pilot car PCC 1071 delivered December 2010
  - Forecast to enter service: July 2011
  - Vehicle delivery will be one per month after conditional acceptance of pilot car
  - This project is fully funded from a number of federal, state and local grants

## Historic Street Car Rehabilitation Program



CAR 1008 DELIVERED TO BROOKEVILLE FOR REPAIR

## Historic Street Car Rehabilitation Program



CAR 1008 GETTING A NEW BODY

## Historic Street Car Rehabilitation Program

- Complete Rehabilitation of Car No. 1 – Brookeville Equipment Company (BEC)
  - Project Budget: \$2.5 million
  - Contract Value: \$1.9 million
  - Scope: This vehicle is almost 100 years old and has been out of service for several years. It required extensive rehabilitation of the body and all mechanical and electrical systems. Systems were rebuilt by reverse engineering individual components.
  - Contract Duration: April 2009 - April 2012
  - Vehicle Delivered: December 2010
  - Forecasted to enter service: August 2011
  - This project is fully funded from a number of federal, state and local grants

## Historic Street Car Rehabilitation Program



CAR NO. 1 BEFORE IT WAS SENT OUT FOR REHABILITATION



## Historic Street Car Rehabilitation Program



CAR NO. 1 AFTER REHABILITATION