

Update on Stadler Contract Option and Rail Vehicle Acquisition

Finance Committee
April 24, 2023



100% Zero Emissions Corridor Program

Caltrain Zero Emission Corridor Future

- **Current Fleet**

- Caltrain operates 29 diesel locomotives circa 1985 – 2003



- **Zero Emission Corridor Plan**

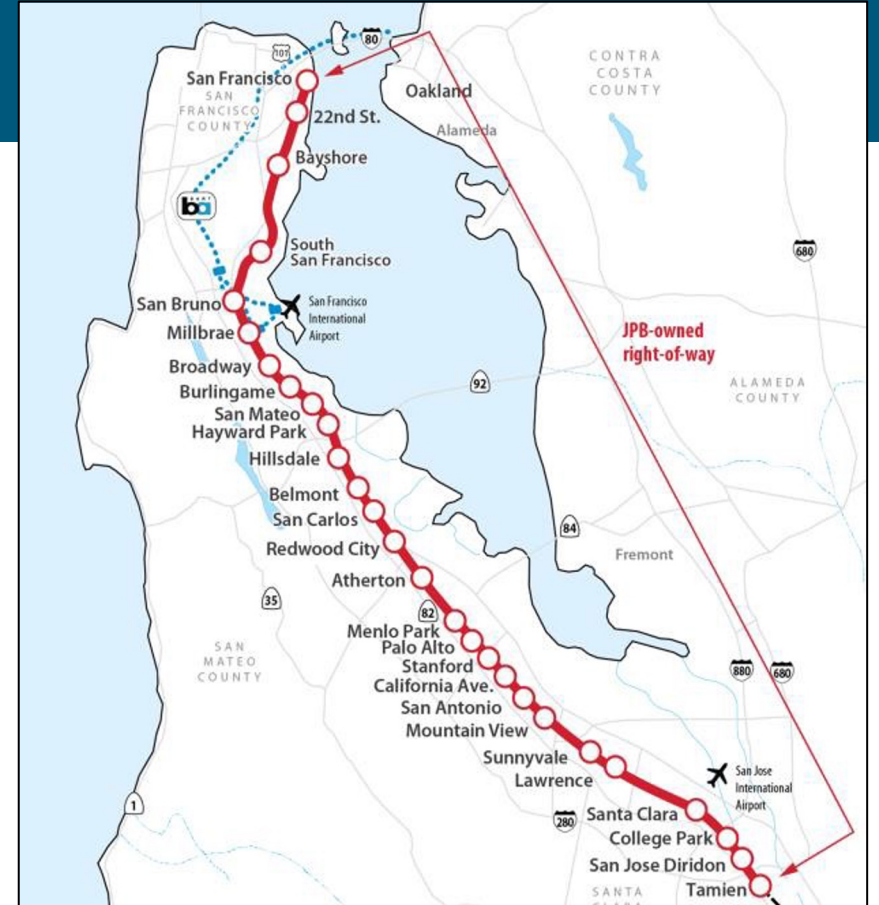
- Caltrain Electrification Project
- Replacement & Expansion Electric Multiple Units (EMUs)
- Battery Electric Multiple Units (BEMUs)



Caltrain Electrification Project

Transition from Diesel to Electric Trains

- Electrifying Caltrain-owned 51-miles from San Francisco to San Jose (Tamien Station)
 - Replacing 20 diesel locomotives with 19 EMU 7-car trainsets
- Project Cost: \$2.44B (Fully Funded)
- Revenue Service: Fall 2024



Caltrain Zero Emission Corridor Vehicle Needs



5 Electric Trainsets

- Existing Stadler contract option provides significant savings if funding available by August 2023
- Provides more than 90% zero emission service



6 Battery-equipped Electric Trainsets

- Stadler contract could include one pilot demonstration project BEMU trainset
- Opportunity to provide zero emission service south of Tamien

Stadler Contract Option for Vehicles

- Caltrain has the opportunity to purchase rail vehicles at a reduced price through the option on our Stadler contract
- **Funding timing critical (existing contract option expires August 15, 2023)**
 - Cost savings of between 45% to 60% of the cost of the vehicles
 - Approximately \$125M to more than \$150M in avoided costs
- Pursuing federal, state and regional sources for fleet conversion and expansion in order to exercise the option

Option Vehicles



- **4 replacement EMUs** will enable 90% of Caltrain service to be zero emission.
- **1 expansion EMU** will enable service capacity expansion needed to accommodate DTX/The Portal.
- **1 pilot BEMU** will enable Caltrain to pilot a technology that could provide zero emissions service from Tamien to Gilroy and Salinas on UPRR owned line.
- These trains will further enable more frequent, cleaner, and reliable service.

Total Avoided Costs for EMUs with Stadler Contract Option

Vehicle Type	Trainsets Requested	Cost With Option	Cost Without Option	Total Avoided Costs
Replacement EMUs	4	\$220M	~\$320M	\$100M - \$120M
Expansion EMU (DTX)	1	\$55M	~\$80M	\$25M - \$30M
Total	5	\$275M*	~\$400M	\$125M - \$150M

*These are conservative estimates of costs that will be refined as negotiations with Stadler continue

Reasons for Increased Costs without the Stadler Option

- Small size of trainset order
- Costs associated with different car builder
- Lack of available production capacity
- Inflation in labor and materials
- Supply chain issues
- Manufacturers reluctant to enter into long-term fixed price agreements due to recent economic instability
- Cost escalation uncertainty going forward

BEMU Demonstration Train with Stadler Contract Option

- With the Stadler contract option, Caltrain is able to purchase one BEMU demonstration train
- Caltrain is engaged in discussion with CalSTA on funding this demonstration train
- The BEMU would operate between Tamien and Gilroy and between Gilroy and Salinas
- The total cost would be between \$70M and \$80M
- The cost of the pilot BEMU would be significantly mitigated by use of the Stadler option

Funding Requests

- Requesting MTC program FTA Formula Funds over five years for four replacement EMUs (\$176M)
- Applied to the FTA Rail Vehicle Replacement Grant Program for three replacement EMUs (\$80M)
- In discussion with TJPA for the inclusion of one expansion EMU in the DTX project cost
- In discussion with CalSTA regarding a BEMU pilot train that could run to Gilroy and Salinas and could allow FRA to begin vetting BEMU for passenger use in the US

MTC Programming Request for Four Replacement EMUs

	Total	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
FTA Formula	\$176,000,000	\$12,800,000*	\$17,600,000*	\$63,200,000	\$61,600,000	\$20,800,000
Local	\$44,000,000	\$3,200,000	\$4,400,000	\$15,800,000	\$15,400,000	\$5,200,000
Total	\$220,000,000	\$16,000,000	\$22,000,000	\$79,000,000	\$77,000,000	\$26,000,000

*Funding for FY23 and FY24 (\$30.4M) was approved by the MTC Programming and Allocations Committee on April 12



Other Potential Funding Sources for EMUs and BEMUs

- Solutions Congested Corridors Program
- Transit and Intercity Rail Capital Program
- Affordable Housing and Sustainable Communities Grant Program
- Local Partnership Program Competitive Grants
- FTA Future Formula Funds
- FTA Future Competitive Grant Programs
- Carl Moyer Memorial Air Quality Standards Attainment Program

FOR MORE INFORMATION

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