

Caltrain Electrification Project Update

Finance Committee

January 24, 2022

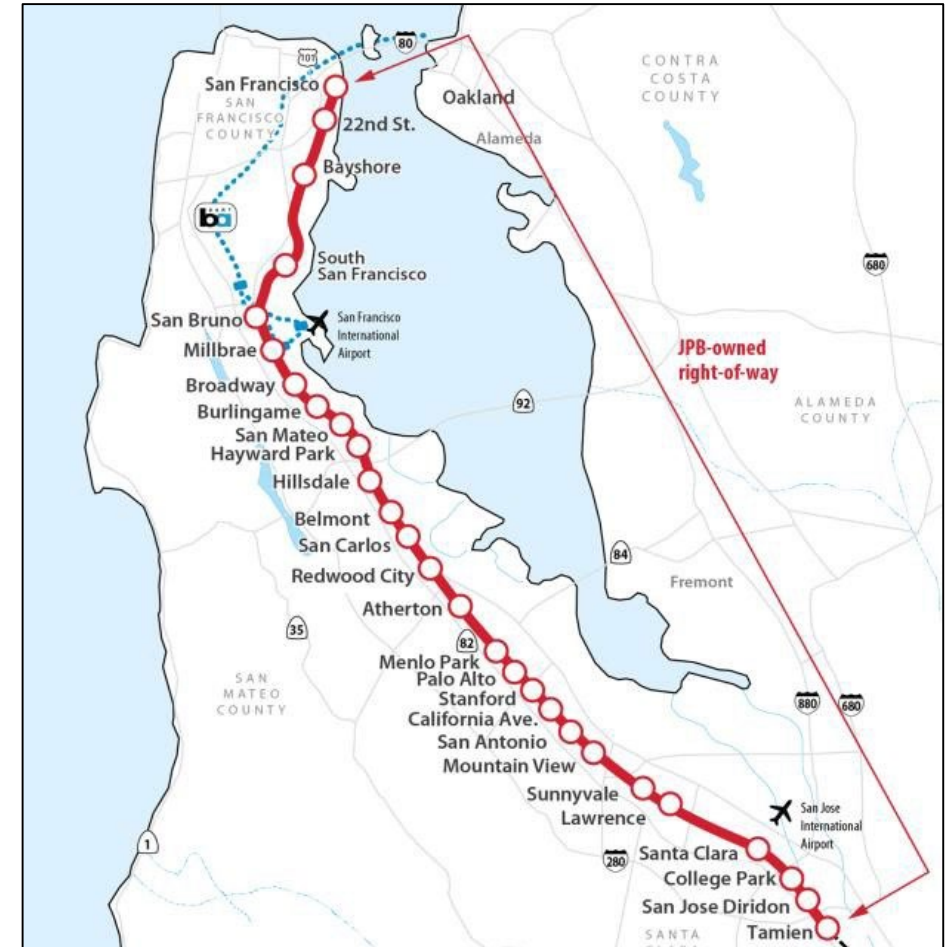
Agenda Item #8



Program Overview

Program Overview

- San Francisco to San Jose (Tamien Station)
- 51 miles
- Project Cost: \$2.44B
- Revenue Service: Fall 2024



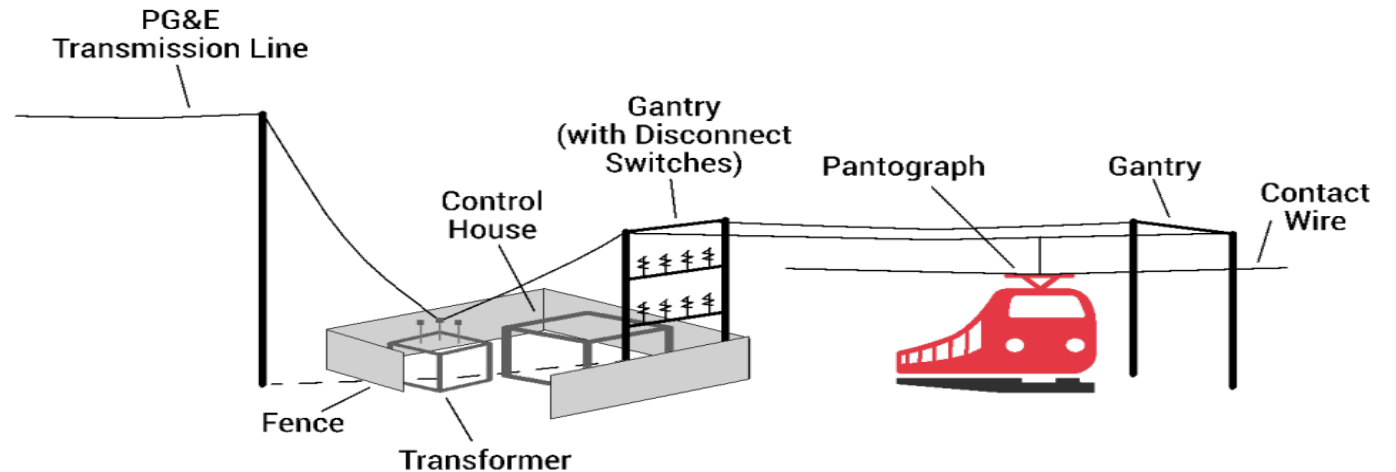
Project Elements

- Electrification
 - Overhead Contact System (OCS)
 - Traction Power Facilities
 - Signal System

- Electric Trains

- 19 7-car train sets (133 cars)

(Note: 96 cars funded by project; 37 cars funded by State TIRCP)



Project Benefits



Improved Train Performance,
Increased Service and Greater Capacity



Improved Regional Air Quality and
Reduced Greenhouse Gas Emissions



Job Creation Locally and
Across the Country



Reduced Engine Noise
Emanating from Trains



Project Summary

Highlights

- Revenue service date remains fall 2024
- No impact to new adopted budget
- No draw to BBII risk pool, contingency and incentive
- Funding team identified to pursue state and federal resources
- New team organization implemented

December Activities

- BBII rebaseline schedule
- Started weekly meetings with BBII to manage and mitigate shared risk
- Partnering
 - First executive partnering held December 2021
 - Project level partnering starts in January 2022
- JPB/BBII organization change to address shift from civil to systems integration and testing
- Segment 4 Readiness Review workshop

Upcoming Milestones

Item	Date
Finalize FTA Recovery Plan	January 2022
All Foundations Installed	Winter 2022
Energization of Segment 4	Winter 2022
Major Signal System Cutovers in Segment 2	March 2022
Arrival of First Trainset	Spring 2022
Completion of Segment 4	Spring 2022
Revenue Service Date	Fall 2024

Reset Program Organization

- Resources focused on System Integration & Rail Activation
- New executive leadership
 - Acting Executive Director
 - Project Chief
- Legal representation Olsen Remcho
- New Program Director and responsible functions:
 - System Integration & Testing
 - Project Delivery
 - Program Controls
 - Rail Activation and Startup

Safety and Security

Time Period	Reportable Injury Rate
Year-to-Date	1.48
Since Project Start (2017 to Today)	1.95

Note: National Average Reportable Injury Rate is 2.50

- Public awareness safety campaign January 2022
- Caltrain employees OCS safety awareness training January 2022
- BBII OCS safety awareness training (Look Up and Live) February 2022
- OCS awareness included in TASI roadway worker protection training
- OCS awareness training transit police
- Continued collaboration with San Jose / Santa Clara Fire Departments
- Contractors / subcontractors COVID-19 plans meeting federal, state and local requirements

Construction Update

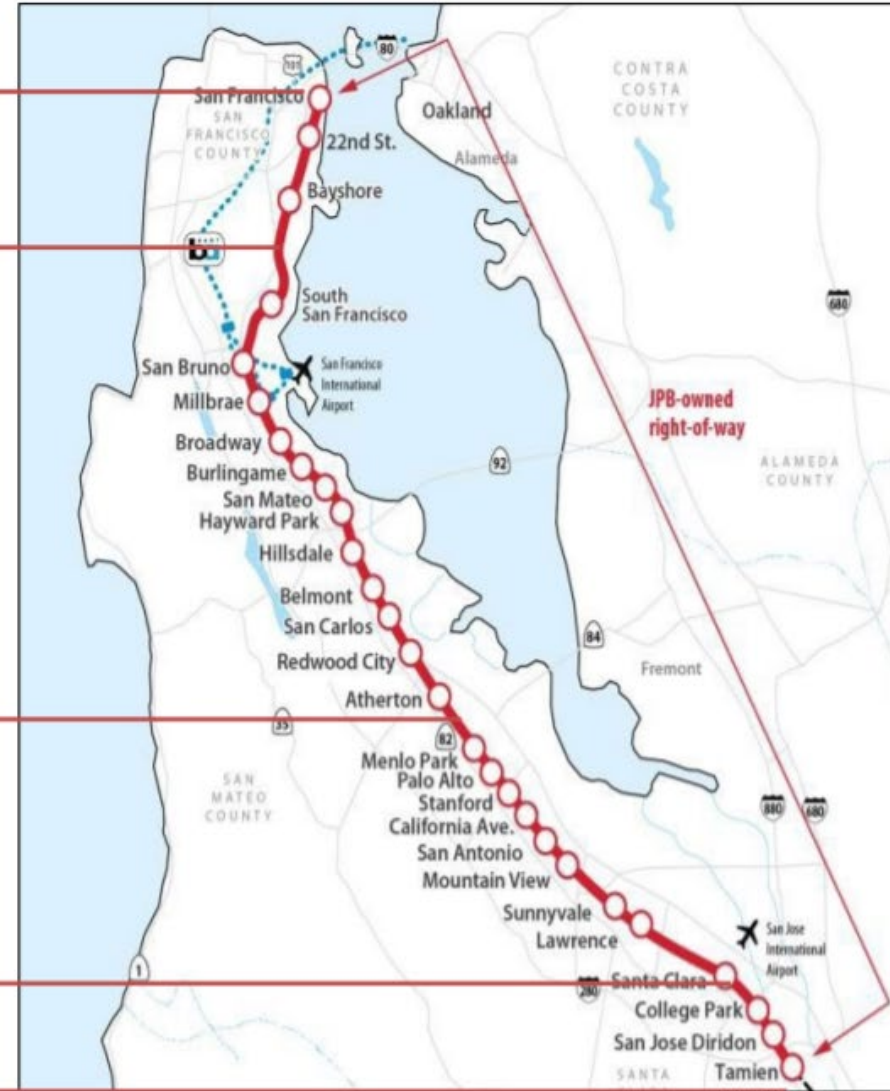
Construction Segments

Segment 1
San Francisco to Brisbane

Segment 2
South San Francisco to Atherton

Segment 3
Menlo Park to Santa Clara

Segment 4
Santa Clara to Tamien



Overhead Contact System

- Foundations (3,092 total)
 - All Foundations Complete
- Poles (2,587 total)
 - Segments 3, 4 and CEMOF: Complete
 - Segments 1 and 2: 758 Poles Remaining
- Wire (1.5M linear feet total)
 - Segments 3 and 4: Complete
 - Segments 1 and 2: 571K Linear Feet Remaining



As of January 20, 2021

Traction Power Facilities and PG&E

- Traction Power Facilities (10 Facilities)
 - Approximately 80% Complete
 - Work Remaining: Energization, Commissioning, Testing
 - All work is anticipated to be completed by fall 2022
- PG&E
 - Single Phase Study
 - Availability of temporary power
 - Availability of permanent power
 - Completion of interconnect testing



Signal System and Communication

(2 Speed Check)

- Segment 4
 - Complete
- Segment 2
 - Major cutover mid-March
 - Complete remaining activities November 2022
- Segments 1 and 3
 - Work remaining: power drops, field installation, testing and cutover
 - Signal and communication work anticipated to be complete by winter 2023

Electric Trains

- Completion of 4,000 mile testing first trainset in Pueblo, CO
- First trainset to be shipped March 2022
- Rebaseline of production schedule
- 14th trainset anticipated arrival winter 2023 for revenue service fall 2024
- 19th trainset anticipated arrival fall 2024



As of December 15, 2021

Crossing Optimization Project

Project Goal

- Implement wireless activation system
- Improve grade crossing warning system performance
- Reduce crossing system activations
- Reduce gate down time

Work Completed to Date

- Concept of Operations including FRA reviews
- Submitted crossing optimization test request for FRA approval
(public comment period ends February 2022)
- Completed throughput & communications readiness studies
- Completed optimization on-board system design

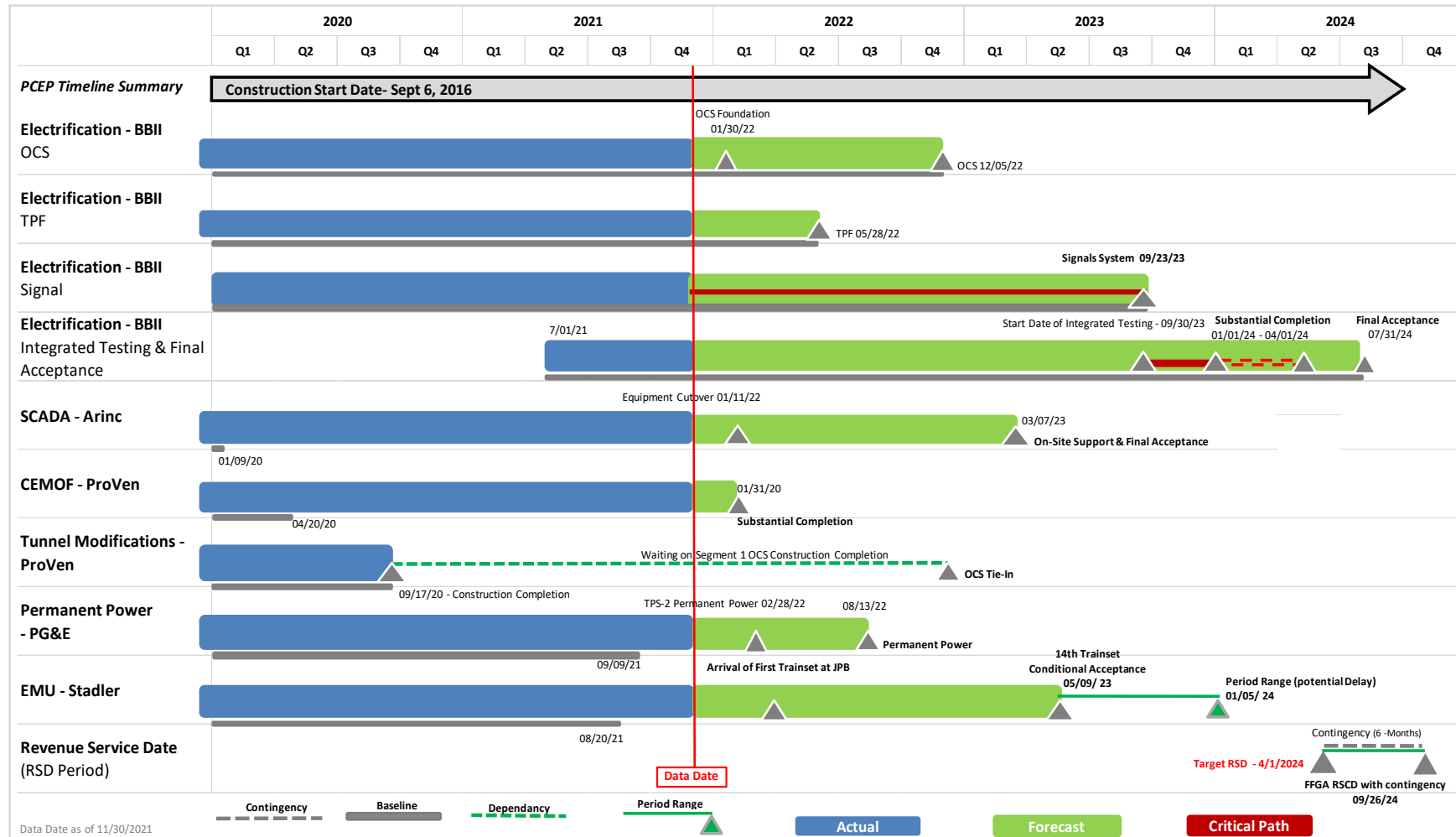
Upcoming Major Activities

- Proof of Concept: Perform pilot cutover at Virginia and Auzeais crossings Winter 2022
- Review, negotiate and approve additional work proposal with Wabtec
- Seek Change Management Board approval February 2022
- Finalize implementation schedule and total project cost March 2022

Program Management

Program Master Schedule

Revenue Service Date Remains Fall 2024



Top Risks

Green = Mitigations/actions identified and no impact to budget/schedule

Yellow = Mitigations/actions identified and potential impact to budget/schedule

Red = Impact to budget/schedule

Delay of two speed check design, installation and testing
\$410M funding gap
Single Phase Study approval delay may impact testing and energization of Segment 4
Delays in parts supply chain affecting vehicle production
System integration and interface with existing operational systems testing duration and resources
Different site condition resulting duct bank construction delay impacting signal cutover schedule

Program Budget

Description of Work	Current Budget (1)	Cost for Month (2)	Cost to Date (3)	Estimate to Complete	Project Total
Electrification	\$1,749,139,438	\$38,595,734	\$1,084,939,492	\$664,199,946	\$1,749,139,438
EMU	\$693,551,258	\$6,686,809	\$317,117,736	\$376,433,523	\$693,551,258
Program Total	\$2,442,690,696	\$45,282,542	\$1,402,057,228	\$1,040,633,468	\$2,442,690,696

Notes:

1 "Current Budget" includes executed change orders and awarded contracts

2 "Cost This Month" represents cost of work performed November 2021

3 "Cost To Date" includes actuals (amount paid) and accruals (amount of work performed) as of November 2021

Contingency, Risk and Incentive

	Project Contingency	BBI Shared Risk Pool	BBII Incentive Pool*	Total
Baseline Amount <i>as of 12/6/21</i>	\$40.0M	\$50.0M	\$18.5M	\$108.5M
Usage <i>through 12/31/21</i>	(\$0.0M)	(\$0.0M)	(\$0.0M)	(\$0.0M)
Remaining Balance	\$40.0M	\$50.0M	\$18.5M	\$108.5M

*Note: Total incentive includes carryover from original budget and \$15M from BBII global settlement

Funding Update

- Develop \$410M Funding Plan
 - Identified consultant support and prepare federal /state funding action plan
 - Developing collateral materials (jobs map, etc.)
- Federal Update
 - Tracking Notice of Funding Availability (NOFA) / administration push for significant awards in 2022
 - Continuing to meet with federal delegation and funding agencies regarding project need
 - Seeking clarity on Capital Investment Grants funding eligibility
 - Advocating for FY22 appropriations language to maximize funding for Full Funding Grant Agreement projects in need

Funding Update, cont.

- **State Update**

- -Tracking Notice of Funding Availabilities (NOFAs)
- -Meeting with state delegation and funding agencies regarding project need
- -Governor's Budget Included \$9.1B for transportation
- -Discussion with Budget Chairs underway geographic targets and existing funding formula vs TIRCP language flexibility

Upcoming Board Actions

- No upcoming JPB actions forecasted
- Future reporting items
 - Draw down of contingency, risk and incentive
 - Contract capacity/budget actions

FOR MORE INFORMATION

WWW.CALTRAIN.COM

