

Caltrain Modernization Program Peninsula Corridor Electrification Project (PCEP)



Executive Monthly Progress Report

March 31, 2023

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1.0 EXECUTIVE SUMMARY

1.1 Introduction

The Peninsula Corridor Electrification Project (PCEP) will upgrade 51 miles of diesel service to electrified service from San Francisco to San Jose (Tamien Station). The PCEP scope of work includes design and construction of an overhead contact system, traction power facilities, modification of the existing signaling and grade crossing protection system to make it compatible with the electrified railroad, substation improvements at Pacific Gas and Electric (PG&E) substations, and modifications at existing tunnels and Caltrain's maintenance facility. It also includes the design, manufacturing, assembly, testing, and delivery of the Electric Multiple Units (EMUs).

Caltrain completed a thorough assessment of all aspects of the program including cost, schedule, risks, and organization after the global settlement in 2021. Caltrain rebaselined the program budget and schedule in December of 2021. Caltrain finished a schedule reforecast in March 2023 and is committed to deliver PCEP and achieve revenue service in September of 2024.

1.2 **Program Cost and Budget**

On December 6, 2021, the JPB adopted a new PCEP program budget of \$2,442,690,697. On January 31, 2023 Caltrain received a \$367 million funding award from California's Transit and Intercity Rail Capital Program's (TIRCP) Cycle 6 Existing Project Reserve, representing the remaining funding needed to complete the project. The project is now fully funded in the amount of \$2,442,690,697. As of March 2023, the project is on budget:

- The current project total cost at completion (EAC) is the same as the Board adopted budget of \$2.44 billion.
- As of March 2023, a total of \$5.23M has been drawn down from the Shared Risk Pool of \$50 million. In March 2023, \$0.58M was drawn from the Shared Risk Pool.
- As of March 2023, a total of \$3.52M has been drawn from the project contingency of \$40 million. In March 2023, there was no draw from project contingency.
- As of March 2023, no new awards have been made from the Project incentive pool of \$18.5 million.
- As of March 2023, no incentive was issued from the milestone incentive pool of \$15 million.

1.3 **Program Progress and Schedule**

As of March 31, 2023, the overall project completion is 81.46%. The current program schedule is projecting a PCEP substantial completion date of April 2024 and Revenue Service by September 2024. Staff is implementing a 2023 path to completion with 31 weekend area focused bus bridges to maximize track access to allow system integration testing, signal cutovers, and proactive OCS construction productivity mitigations for the remaining PCEP work. There were five (5) weekend partial bus bridges implemented through March 2023.

1.4 Change Management Board (CMB)

In March 2023, the following Change Order item was brought to CMB for approval:

• VTA Bus Bridge Service

1.5 This Month's Accomplishments

The project team has completed the following notable activities for the month of March 2023:

- Completed project schedule reforecast that reflects the path to completion with 31 focused area weekend closures. The reforecast schedule does not change the Project completion date. Interim milestones have been adjusted to reflect the focused area weekend closures.
- Continued to coordinate with PG&E on TPS 2 short circuit testing, low voltage power drop applications, and distribution line de-energization work.
- Provided emergency response on March 14th due to heavy rain and windstorm; helped the railroad clear fallen tree on the ROW. The assessment of storm damage has been completed and incorporated into the Project schedule.
- Performed readiness reviews for weekend bus bridges for OCS Segment 2 construction.
- Completed Rail Service Plan for weekend partial area closure from Millbrae to San Francisco to support Segment 2 OCS construction.
- Continue focused area limited weekend shutdown work in March and April 2023 from Millbrae to Hillsdale and Belmont to Menlo Park.
- The Project team continues to utilize the OCS weekly quantity tracker to monitor weekly planned quantities vs. actual production.
- Continued negotiation on railroad isolation and protection change order.
- Continued development of OCS/TPS maintenance service contract procurement.
- Continued safety special task force working group, including TASI, Rail Operations and PCEP to address communications, process, and procedure improvements.
- Continued providing PCEP progress updates to funding partners, leadership, elected officials, citizens, and business community.
- Continued Rail Activation effort on path to energization for Segment 4 and CEMOF.
- Continued field validation, pretesting, and complete documentation required to perform short circuit retest. To mitigate risk, the team will be performing a load bank test at TPS 2.
- Continued working with Caltrans on Segments 3 and 1 encroachment permit.
- Completed EMU Storage Plan.
- Held in person Executive workshop to discuss actions required to complete remaining work on schedule.

1.6 Upcoming work

For the next six months, the PCEP team has set additional goals as described below:

- Hold bi-weekly project completion road map meeting with Design-Build Contractor Executives to address OCS productivities and TPS findings.
- Continue operations planning, ambassador, and rail service planning effort for weekend area closures for Segment 2 OCS construction, and

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Segment 3 last cutover scheduled last two weeks in April 2023.

- Continue to coordinate with PG&E on TPS 2 short circuit testing, low voltage power drop applications, and distribution line de-energization work.
- Commence EMU maintenance training.
- Perform short circuit re-test in May 2023.
- Complete TPS documentation audit, field validation and test audit.
- Hold FTA Quarterly progress meeting on site.
- Plan for Segment 4 Drill Track and Segment 4 Live runs and full energization.
- Energize CEMOF for EMU commissioning.
- Complete Segment 3 construction and ready for Sectionalization Testing.
- Hold Monthly CMB meeting for program status and change order approval.
- Complete Segment 3 signal cutovers at Palo Alto, Mountain View and Sunnyvale in April 2023.
- Develop EMU interim maintenance and revenue service maintenance program.
- Finalize PCEP EIR tree mitigation approach.
- Meet with FTA and complete Programmatic Agreement (PA) amendment and finalize burial agreement and treatment plan.

The PCEP Project is currently on budget and on time for achieving Revenue Service in September of 2024.

1.7 Critical Items

As of March 2023, PCEP has completed Segment 2 signal cutover, fulfilled the \$410M funding gap, and has adequate RWIC to support field construction. The top critical items and related actions are highlighted below.

Critical Issues	Actions
Overhead Contact System (OCS) installation delay due to low productivity Note: The project OCS work was on hold from March 10, 2022, to March 28, 2022 during the safety stand down. Segment 2 OCS was damaged during high wind and heavy rainstorms in late December 2022 and early January 2023	 Additional BBII OCS crew training for regulation and variance in the OCS design / installation due to redesign & accommodations to resolve foundation Differing Site Conditions (DSC) issues – Completed. Hiring additional BBII OCS staff members to prevent schedule slippage and help in future installation planning – Completed. Hold OCS construction scheduling recovery workshop for remaining OCS installation and testing – Completed. Increase OCS crews and OCS wiring equipment to increase productivity – Completed. More track access including weekend area closures for remaining Segments 1 and 2 OCS construction and testing. Weekend bus bridge construction started on February 11, 2023. OCS storm repair work for Segment 2 is planned for September 2023 due to rainstorm and long lead time for materials. Bring on more regulating crews in May 2023. Procure more equipment parts and ensure all equipment is performing well for construction.

 Table 1-1. Critical Issues and Actions

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Critical Issues	Actions
	 Bring on equipment fitters and warehouse material manager on site.
Unsuccessful TPS 2 short circuit test delays drill track and Segment 4 mainline energization	 Perform comprehensive root cause analysis and develop corrective action plan.
	 Implement configuration change control process including design drawing, shop drawings, as-built version control to ensure all parties are using the same set of drawings for TPS2 testing.
	 Perform technical working groups including all vendors and EOR.
	 Weekly management team briefing on corrective action status.
	 Perform independent assessment of the TPS.
	 Develop SSWP for all work performed at TPS for Caltrain review and approval.
	 Perform field verification and pre-testing before short circuit re-test.
	Perform load bank testing prior to short circuit re-test.

2.0 SAFETY

There was one (1) reportable injury in March 2023 and one (1) added in February. The Reportable Injury Rate (RIR) for the entire year (2022) was 2.82. Overall, since the project's inception, the RIR is at 1.94, which is below the national average of 2.5. The RIR for 2023 is at 2.53.



Figure 2-1. Project Reportable Injury Rate (RIR) by Year

Completed Work

Safety staff continues to coordinate with contractors to identify opportunities to improve safety performance. Organizational-wide safety briefings are being performed to ensure staff understand the application of post incident mitigation measures including rules and procedural changes designed to enhance safety. Project Safety continues to reinforce jobsite safety practices throughout the Caltrain alignment, investigate incidents, and identify mitigation measures to prevent re-occurrences. Safety project coordination meetings continue to be conducted monthly to promote a clear understanding of project safety requirements. In addition, Caltrain Safety continues weekly calls with the lead safety staff from Caltrain, PCEP, BBII, and TASI to discuss safety performance and ongoing initiatives.

Upcoming Work

The Fire/Life Safety Committee continues to work with emergency responders along the Caltrain corridor on emergency preparedness in advance of energization. The safety team has

updated the OCS and EMU emergency responder safety familiarization presentations to include voiceover features for use by the Fire Departments. The presentation will also be shared with other emergency responder jurisdictions through the project Fire/Life Safety Committee.

OCS safety awareness training was delivered to Mountain View Fire Department on February 1, 2023, and Sunnyvale Fire Department from February 15-17, 2023. PCEP Safety Team provided OCS Safety Awareness training to the California Public Utilities Commission (CPUC) inspectors in Fresno, CA on April 4, 2023 with 63 attendees. Training was conducted for Palo Alto Fire Department on March 27, 29, and April 6 with a total of 59 firefighters in attendance. Menlo Park Fire Department training is scheduled for May 1, 2, and 4.

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3.0 IMS PROGRAM SCHEDULE

3.1 Introduction

The Integrated Master Schedule (IMS) Program Summary Schedule depicted in **Figure 3-1** shows the schedule status of the major PCEP projects. The current schedule dates for this program schedule were based on BBII's March 2023 Progress Schedule as well as the Stadler March 2023 EMU Progress Schedule. The Revenue Service Date (RSD) is still September 26, 2024 and Full Funding Grant Agreement (FFGA) Revenue Completion Date (RCD) remains December 31, 2024.



Figure 3-1. Master Program Summary Schedule

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3.2 Critical Path Analysis

The current critical path remains basically the same as last month starting with waiting to receive the PG&E (Low Voltage) Power Design for Wayside Power Cubicle (WPC) 2, completing the installation of the Pedestal Housing for the Meter, requesting the actual Meter from JPB for installation into the housing, providing the Low Voltage Power Drop connection to WPC-2 followed by a 50-day Project Schedule Contingency placeholder (used to offset any potential delays), Substantial Completion, Final Punchlist, Final Acceptance Inspection and Final Acceptance. The Total Float of the critical path remains at 0.

A	ctivity D	Activity Name	Duration	Total	Reforecast	Reforecast	Current	Current	Refor Finish				023								2024		
			1	Float	Start .	Finish	Start .	Finish	Varian œ	Feb Mar	Apr Ma	y Jun	Jul /	Aug Se	p Oct	Nov	Dec	Jan	Feb Ma	r Apr	May J	Jun J	lul Aug
	Segment 1 (8 Mi)																						
	PD-01-1080	Complete Pedestal / Meter Install / Precon - 0.53 CP Common / WPC 2	42	0	29-Sep-23	09-Nov-23	29-Sep-23	09-Nov-23	0						-								
٦	PD-01-1070	Request Meter from JPB - 0.53 CP Common / WPC 2	14	0	10-Nov-23	23-Nov-23	10-Nov -23	23-Nov-23	0														
	PD-01-1840	Receive PG&E Power Design - 0.53 CP Common / WPC 2	250	0	22-Jan-23	28-Sep-23	22-Jan-23 A	28-Sep-23	0						-								
٦.	WP-01-1280	Provide Power Drop WPC 2	70	0	24-Nov-23	01-Feb-24	24-Nov -23	01-Feb-24	0							-	-						
	All Segments											•••••••								1			
	DS-00-7420	Low Voltage Services Ready for Energization - Segment 1 / Punchlist Verification	5	1	08-Feb-24	11-Feb-24	06-Feb-24	11-Feb-24	0														
٦.	FTC-0001	Project Schedule Contingency	50	0	12-Feb-24	01-Apr-24	12-Feb-24	01-Apr-24	0											=			
٦.	GC -00-9920	Final Acceptance	0	0		30-Jul-24		30-Jul-24*	0														\$
٦.	GC-00-9990	Scheduled Substantial Completion	0	0		01-Apr-24		01-Apr-24*	0											. 👌			
1	PC-00-0990	Overall Schedule / Substantial Completion Completion Milestone	0	1		01-Apr-24		01-Apr-24	0														
	TS-00-0500	Low Voltage Permanent Power Provided for All Segments	0	1		11-Feb-24		11-Feb-24	0										\$				
	Submittals																						
	GC-00-9930	Final Acceptance Inspection	60	0	01-Jun-24	30-Jul-24	01-Jun-24	30-Jul-24	0												_	<u> </u>	_
	SM-00-20020	Final Punchlist	60	0	02-Apr-24	31-May-24	02-Apr-24	31-May-24	0								1			_			

Figure 3-2. Critical Path Schedule

3.3 Schedule Contract Milestone Analysis

Milestone No. 1: The Sectionalizing Segment 3 Integrated Testing continues to impact the completion of Milestone No. 1. This Milestone has been redefined to include Segment 3 and 4 for more electrified mileage to test the Trainsets. Overall, Milestone No. 1 is currently showing an anticipated completion of July 16, 2023, which is now 49 days later than the Reforecast date of May 28, 2023. The delay has been caused with the failures in short circuit testing, configuration management and lack of Contractor resources.

Contractor	Milestones	Reforecast Dates (Dec '22)	Current Dates (Mar '23)	Milestone Finish Date Variance	Remarks
BBII	System Integration Testing Start (Segment 4)	5/21/2023	6/18/2023	-28	Delayed by the failed short circuit testing which has delayed the EMU live runs within Segment 4.
BBII	Completion of Milestone 1 (Segments 3 and 4)	5/28/2023	7/16/2023	-49	Delayed by failures in Short Circuit Testing as well as significant weather delays through storm damage or heavy rain during the month of March 2023
BBII	PG&E Energize & Provide Power 115kV to TPSS-1	9/12/2023	8/20/2023	23	Duration improvement from solving battery and other issues at Traction Power Substation #2.
BBII	Signal Cutovers and Systems Completion	8/20/2023	8/20/2023	0	
BBII	OCS Construction Completion	10/2/2023	10/27/2023	-25	Delayed by reconstruction and testing of OCS at the Guadalupe Bridge.
BBII	System Integration Testing Completion	11/25/2023	12/17/2023	-22	Delayed by delays to the live run testing in Segment 1 and 2 until the OCS System in those segments can be energized
Stadler	14th Trainset Arrival at JPB Site	10/12/2023	3/12/2024	-152	Delayed by Stadler experiencing multiple problems obtaining parts and subassemblies from their Suppliers. They are committed to deliver the first 14 Trainsets by 3/22/2024.
BBII	Substantial Completion	4/1/2024	4/1/2024	0	
BBII	Scheduled Final Acceptance	7/30/2024	7/30/2024	0	
JPB	Revenue Service Date (RSD)	9/26/2024	9/26/2024	0	
JPB	FFGA Revenue Completion Date (RCD)	12/31/2024	12/31/2024	0	

Figure 3-3. Contract Milestone Analysis

4.0 COST AND BUDGET

4.1 Introduction

This section presents an update on program cost and budget. On December 6, 2021, the JPB adopted a new Program budget of \$2.44 billion. Table 4-1 depicts a summary level of program budget, costs, and estimate at completion based on the latest update of the Electrification and EMU projects as of March 31, 2023.

4.2 Program Budget and Cost

Description of Work	Current Budget (A) ¹	Cost This Month	Cost To Date	Estimate To Complete	Estimate At Completion	Variance at Completion
		(B ²	(C) ³	(D)	(E) = (C) + (D)	(F) = (A) – (E)
Electrification	\$1,749,139,439	\$4,253,345	\$1,515,096,973	\$234,042,465	\$1,749,139,439	\$0
EMU	\$693,551,258	\$2,007,553	\$507,434,836	\$186,116,422	\$693,551,258	\$0
PCEP TOTAL	\$2,442,690,697	\$6,260,898	\$2,022,531,810	\$420,158,887	\$2,442,690,697	\$0

Table 4-1. Budget Summary by Project

^{1.} Column A "Current Budget" includes re-baseline and executed change orders and awarded contracts.

^{2.} Column B "Cost This Month" represents the cost of work performed this month.

^{3.} Column C "Cost To Date" includes actuals (amount paid) and accruals (amount of work performed) to date.

Table 4-2 depicts program budget, costs, and estimate at completion summarized by major elements of work. This budget table provides additional detail for the program and is broken down by major contracts for Electrification and EMU, minor contracts, real estate, utilities, project management oversight and other indirect support costs.

Table 4-2.	Budget Summary	y by Major	Elements
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Description of Work	Re-Baseline Budget	Current Budget	Cost This Month	Cost To Date	Estimate To Complete	Estimate At Completion
Electrification	\$1,097,149,881	\$1,097,149,881	\$192,448	\$904,334,942	\$192,698,939	\$1,097,033,881
EMU Procurement	\$556,072,601	\$556,248,486	\$1,132,975	\$420,210,493	\$136,427,993	\$556,638,486
Minor Construction Contracts (Tunnel, CEMOF, SCADA, Non- BBI OCS)	\$67,055,072	\$68,091,194	\$0	\$64,677,734	\$3,413,459	\$68,091,194
Real Estate Acquisition & Support	\$34,914,177	\$34,914,177	\$41,498	\$24,019,371	\$10,894,806	\$34,914,177
PG&E, Utilities	\$132,088,994	\$132,088,994	(\$1,403,354)	\$203,562,729	-\$71,473,734	\$132,088,994
Management Oversight & Support	\$312,699,697	\$315,007,767	\$3,083,955	\$266,527,647	\$48,480,120	\$315,007,767
TASI Support	\$114,488,767	\$114,488,767	\$1,711,744	\$95,505,014	\$18,983,752	\$114,488,767
Finance Charges	\$9,898,638	\$9,898,638	\$57,500	\$9,361,780	\$536,858	\$9,898,638
Insurance	\$6,581,851	\$6,581,851	\$1,220,962	\$6,118,411	\$463,440	\$6,581,851
Other Required Projects & Services	\$9,084,176	\$10,484,176	\$227,492	\$3,863,462	\$6,820,714	\$10,684,176
Environmental Mitigation	\$14,438,866	\$13,038,866	\$0	\$1,242,229	\$11,596,637	\$12,838,866
Caltrain Capital Overhead (ICAP)	\$48,217,887	\$48,217,887	(\$4,321)	\$23,107,996	\$25,109,891	\$48,217,887
Contingency	\$40,000,089	\$36,480,012	\$0	\$0	\$36,206,012	\$36,206,012
Total	\$2,442,690,697	\$2,442,690,697	\$6,260,898	\$2,022,531,810	\$420,158,887	\$2,442,690,697

4.3 Program Shared Risk Pool and Contingency

Caltrain and Balfour Beatty Infrastructure, Inc. (BBII) continue implementing new mechanisms to ensure a collaborative approach to Project delivery. The management team meets every week to review the issues log focusing on risk mitigation and issues resolution.

As part of global settlement, a shared risk pool of \$50 million was established to manage risks and mitigation proactively and collaboratively with the design-build contractor. Table 4-3 shows the current shared risk drawdown for the current month and to-date as well as the remaining balance of the shared Risk Pool by Risk Category. Any shared risk items (27 Risk IDs listed below in Table 4-3) that are above \$250,000 require Change Management Board (CMB) approval.

Risk ID	Risk Description	Risk Amount	Current Month	Executed to Date	Remaining Balance
1	Permanent Power Availability	\$268,572	\$0	\$178,365	\$90,207
2	Different Site Condition for OCS Foundation	\$3,500,000	\$0	\$986,104	\$2,513,896
3	Different Site Condition for Duct bank	\$2,800,000	\$17,392	\$409,273	\$2,390,727
4	Condition of existing Fiber backbone infrastructure	\$3,150,000	\$11,818	\$256,450	\$2,893,550
5	Availability of TASI Resource	\$5,777,820	\$0	\$0	\$5,777,820
6	Signal Cutover access and work window	\$5,607,150	\$0	\$0	\$5,607,150
7	Condition of existing signal system	\$538,572	\$0	\$29,125	\$509,447
8	EMI Nonconformance by EMU Vendor	\$750,000	\$0	\$0	\$750,000
9	Reed Street Cutover	\$90,000	\$0	\$0	\$90,000
10	Availability of low voltage power for cutover testing	\$1,120,000	\$0	\$0	\$1,120,000
11	Third party Permits	\$150,000	\$0	\$0	\$150,000
12	SCADA integration for the entire alignment	\$159,524	\$0	\$0	\$159,524
13	Tunnel OCS Compatibility	\$167,500	\$0	\$0	\$167,500
14	Supply chain issue due to COVID 19	\$300,000	\$0	\$28,923	\$271,077
15	End to end Systems integration commissioning	\$2,100,000	\$0	\$0	\$2,100,000
16	Existing Caltrain Operating systems interface and integration	\$1,400,000	\$0	\$71,920	\$1,328,080
17	Third party Approval	\$150,000	\$0	\$13,140	\$136,860
18	Impact from Caltrain other capital or third-party projects	\$2,166,683	\$549,015	\$697,117	\$1,469,565
19	Track access delay for BBII Construction	\$1,800,000	\$0	\$180,770	\$1,619,231
20	Additional light Maintenance and Protection Needs	\$280,000	\$0	\$164,531	\$115,469
21	Crossing Protection	\$220,000	\$0	\$102,334	\$117,666
22	Power facilities	\$500,000	\$0	\$0	\$500,000
23	NCR's	\$0	\$0	\$0	\$0
24	Potholing	\$1,700,000	\$0	\$107,547	\$1,592,453
25	Pre-Revenue Service Operational Testing	\$250,000	\$0	\$0	\$250,000
26	TRO Contingency	\$3,000,000	\$0	\$0	\$3,000,000
27	Contingency	\$12,000,000	\$0	\$2,003,026	\$9,996,974
NA	Unidentified	\$54,179	\$0	\$0	\$54,179
	BBII Risk Pool Total	\$50,000,000	\$578,225	\$5,228,626	\$44,771,374

Table 4-3. Shared Risk Pool Status as of March 2023

In addition to the established Risk Pool with BBII, the Re-Baseline Budget includes a program contingency of \$40 million to cover non-BBII potential changes and unknowns.

Table 4-4 provides a detailed status of approved transfers from contingency due to executed Contract Change Orders and approved Budget Transfers.

Change Order	Description	Current Budget Contingency	EAC Contingency
Project Contingency	Previously Reported Balance	\$36,480,012	\$36,206,012
	PROJECT CONTINGENCY REMAINING BALANCE	\$36,480,012	\$36,206,012

Table 4-4. Program Contingency Drawdown Balance

Note: EAC Contingency reflects forecast contingency.

4.4 Electrification Design Builder Contract Incentives

The Global Settlement with BBII also includes incentives based on Milestone completions and remaining contract incentives. Table 4-6 provides a status of Design-Build Contractor incentives Budgeted, Awarded, and remaining Balance.

Incentives	Budgeted	Awarded	Balance
Contract Incentive:			
Quality	\$1,250,000	\$1,000,000	\$250,000
Safety	\$2,500,000	\$875,000	\$1,625,000
Community Outreach	\$2,500,000	\$1,750,000	\$750,000
DBE	\$900,000	\$0	\$900,000
Total Contract Incentive	\$7,150,000	\$3,625,000	\$3,525,000
Milestone Incentive:			
Early Signal and Crossing Cutover	\$4,000,000	\$0	\$4,000,000
Early Project Substantial Completion (NTE)	\$8,000,000	\$0	\$8,000,000
Early Revenue Service	\$3,000,000	\$0	\$3,000,000
Total Milestone Incentive	\$15,000,000		\$15,000,000

Table 4-5. BBII Incentives

4.5 **Program Cash Flow and Funding**

The remaining program expenditures are cash flowed in Figure 4-1. With the award of the full funding, the program does not expect any cash flow issues due to funding.



Figure 4.1 Expenditure – Funding Cash Flow

4.6 Issues

Table 4-6. Cost and Funding Issues Identified, and Actions Taken for March 2023

Issues	Actions
Late receiving of PG&E \$99 million reimbursement	 Work with PG&E to project reimbursement date. May need to hold \$100 million bond until PG&E reimbursement is made to support project cash flow needs for FY25.

5.0 CHANGE MANAGEMENT

5.1 Introduction

The change management process establishes a formal administrative work process associated with the initiation, documentation, coordination, review, approval, and implementation of changes during the design, construction, or manufacturing of PCEP. The change management process accounts for the impacts of the changes and ensures prudent use of contingency.

5.2 Change Orders/Shared Risk Pool

5.2.1 Executed Shared Risk

The following Shared Risk items were executed in March 2023:

- Incorporation of As-built Additional Pedestrian Gate Mechanism was executed on March 13, 2023 for \$549,014.
- Relocation of Aerial Utilities at Stanford Station (MP 30.5) Design Only was executed on March 14, 2023 for \$17,392.
- 5.2.2 CMB Approved Change Order Items
 - VTA Bus Bridge Service
- 5.2.3 Upcoming Change Orders/Shared Risk Items
 - UPRR Reed Street Median Design Civil Improvements (Sunken Costs) for \$45,089.
 - Final Tie in and Additional Conduit at CP Tunnel MP 4.78 for \$26,526.
 - Segment 2 Low Voltage Power Connections not Available to Support Cutover (Generators) – (11/1/2021 through 11/30/2022).
 - Segment 2 Low Voltage Power Connections not Available to Support Cutover (Generators) – (12/1/2022 through 3/31/2023).
 - Isolation and Protection for Railroad Change Order.
 - Stadler Time Extension and Added Work.
 - EMU Convenience Outlet Modification.

5.3 Issues

Table 5-1. Change Management Issues Identified and Actions Taken for March
2023

Issues	Actions
Segment 4 Maintenance Option in the existing BBII Contract was never exercised. Maintenance of OCS/TPS for Segment 4 will be needed post Segment 4 substantial completion once Caltrain is using it for EMU testing under 25kV.	 Define EMU testing and burn in work schedule. BBII provides isolation and protection once Segment 4 is powered up.
	 BBII will provide maintenance lite during EMU testing and burn in.
	 Prepare Request for Proposal for OCS/TPS Maintenance Service for public procurement scheduled for February 2023.
	 Develop evaluation criteria for Maintenance Service proposals.
	Recommend for award and obtain JPB board approval.