



Caltrain Modernization Program Peninsula Corridor Electrification Project (PCEP)



Executive Monthly Progress Report

August 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 re-baselined 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 August 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 August 2023, a total of \$10.8M has been drawn down from the Shared Risk Pool of \$50 million. In August 2023, \$939,586.00 was drawn from the Shared Risk Pool.
- As of August 2023, a total of \$12.2M has been drawn from the project contingency of \$40 million. In August 2023, there was no draw from project contingency.
- As of August 2023, no new awards have been made from the Project incentive pool of \$18.5 million.
- As of August 2023, no incentive was issued from the milestone incentive pool of \$15 million.

1.3 Program Progress and Schedule

As of August 31, 2023, the overall project completion is 85.58%. 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.

1.4 Change Management Board (CMB)

In August 2023, no items were brought to the CMB for approval:

1.5 This Month's Accomplishments

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

- Successfully energized Traction PowerStation 1 both lines.
- Completed Segment 1 Signal and crossing cutovers which concludes all 2SC cutover for all Segments.
- Continued to monitor monthly project schedule against the 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 developed and measured against the reforecast schedule.
- Continued to coordinate low voltage power drop applications with PG&E and utilizing generators to support project testing and cutovers.
- Continued bi-weekly project completion road map meeting with Design-Build Contractor Executives to monitor OCS productivities and addressed TPS findings. Additional third-party crews have been working on regulations since June 2023.
- Completed operations planning, ambassador, and rail service planning effort for Segments 1 and 2 OCS construction weekend area closures for August.
- Drill track has been energized and used for Operator refresh training.
- Energized CEMOF
- Completed Segment 4 Live run testing.
- Held FTA Quarterly progress meeting.
- Continued Operator's refresher training at the Drill Track.
- Held Monthly CMB meeting for program status and change order approval.
- Continued to work with FRA on Submitted Programmatic Agreement (PA) amendment review and approval.
- 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 taking on isolation and protection service post completion of Milestone 1.
- Received FRA Test request conditional approval and prepared for EMU PTC testing on mainline.
- Finalized short circuit test sequence and test dates with PG&E support.
- Finalized Segment 4 punch list items

1.6 Upcoming work

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

- Host FTA Administrator tour of PCEP project
- Hold EMU Public event at San Francisco 4Th and King
- Complete all OCS Wire and Regulation
- Complete Guadalupe OCS installation and test once Guadalupe project hands off MT2 in October of 2023
- Continue to coordinate with Broadband Project, work with vehicle

- manufacturer and revise EMU production schedule that includes broadband equipment installation.
- Continue bi-weekly project completion road map meeting with Design-Build Contractor Executives to address path to substantial completion.
- Complete service plan and special train schedule for October Segment 1 and 2 OCS remaining weekend area closure.
- Continue operations planning, ambassador, and rail service planning minor issues efforts for Segment 1 and 2 live runs by the end of December 2023.
- Continue to coordinate with PG&E on low voltage power drop applications, and distribution line de-energization work.
- Complete Live run tests for Milestone 1 limits (Diridon to San Antonio)
- Complete EMU PTC Field integrated testing include 79 mph track speed runs.
- Complete 3 joint punch list walks.
- Hold Monthly CMB meeting for program status and change order approval.
- Complete certification of compliance for Milestone 1 limits which will provide 14 miles electrified line for EMU burn-in September 2023.
- Complete EMU EMI Testing
- Complete EMU revenue service maintenance program, EMU storage plan, diesel fleet exit plan, and fleet management plan.
- Continue work with FTA and complete Programmatic Agreement (PA) amendment and finalize burial agreement and treatment plan.
- Perform PTS1 load bank test.
- Start EMU acceptance testing (burn in)

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

1.7 Critical Items

As of August 2023, PCEP has energized traction power substations, completed All Segment 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.

Table 1-1. Critical Issues and Actions

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 re-design & 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.

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Critical Issues	Actions
	• 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 August/September 2023 due to rainstorm and long lead time for materials. • Bring on more regulating crews in May 2023. Mass will start regulating work in the first week of June 2023 – Completed. • Procure more equipment parts and ensure all equipment is performing well for construction – Completed. • Bring on equipment fitters and warehouse material manager on site – Completed.
Complete TPS Short Circuit Tests • TPS 2 short circuit test delays drill track and Segment 4 mainline energization. TPS 2 Short circuit test was performed in May 2023 with some follow up actions. • TPS 1 Short Circuit Test is scheduled for October 21st.	• Perform comprehensive root cause analysis and develop corrective action plan – Completed. • 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 – On-going. • Perform technical working groups including all vendors and EOR – On-going. • Weekly management team briefing on corrective action status – On-going. • Perform independent assessment of the TPS – Completed. • Develop SSWP for all work performed at TPS for Caltrain review and approval – On-going. • Perform field verification and pre-testing before short circuit re-test – Completed. • Perform load bank testing prior to short circuit re-test. – Completed. • Developed remaining short circuit tests required for system completion – on going.
Theft of impedance bond or grounding cables may delay segment live run testing because the system (or portions of the system) cannot be energized without impedance bonds	• Monitor hot spot areas in segments 1, 3 and 4. Perform just in time replacement right before the testing. • Report Theft incidents with Transit PD • Enhance security with cameras and other monitoring systems. • Work with Communications on high voltage safety messages • Distribute high voltage safety fliers to the homeless encampments. • Implement asphalt cover for impedance bonds that have been repeatedly stolen.

2.0 SAFETY

There was 1 reportable injury in August 2023 bringing the total reportable injuries to 5 for the year. The Reportable Injury Rate (RIR) for 2023 YTD is currently 1.48. Overall, since the project's construction started in 2017, the RIR is at 1.58, which remains below the national average of 2.5.

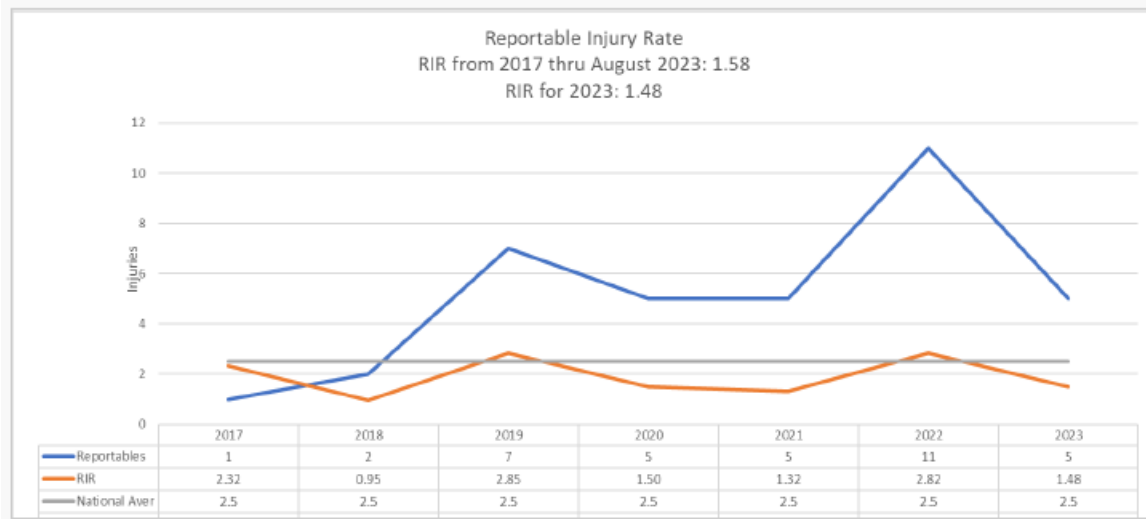


Figure 2-1. Project Reportable Injury Rate (RIR) by Year

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. Caltrain initiated the 10'/10' rule: 10' from track and 10' from overhead wires.

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 and EMU First Responder training has been scheduled for San Francisco, Redwood City, San Carlos, and Belmont for September and October. All First Responder training is scheduled to be completed by the 3rd week of October.

Police Departments along the corridor are also currently being scheduled by the Transit Police to receive this training.

To date there have been 520 Emergency Responders trained and over 225 3rd party contractors and tenant railroad employees.

3.0 IMS PROGRAM SCHEDULE

3.1 Introduction

The Integrated Master Schedule (IMS) Program Summary Schedule depicted in

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

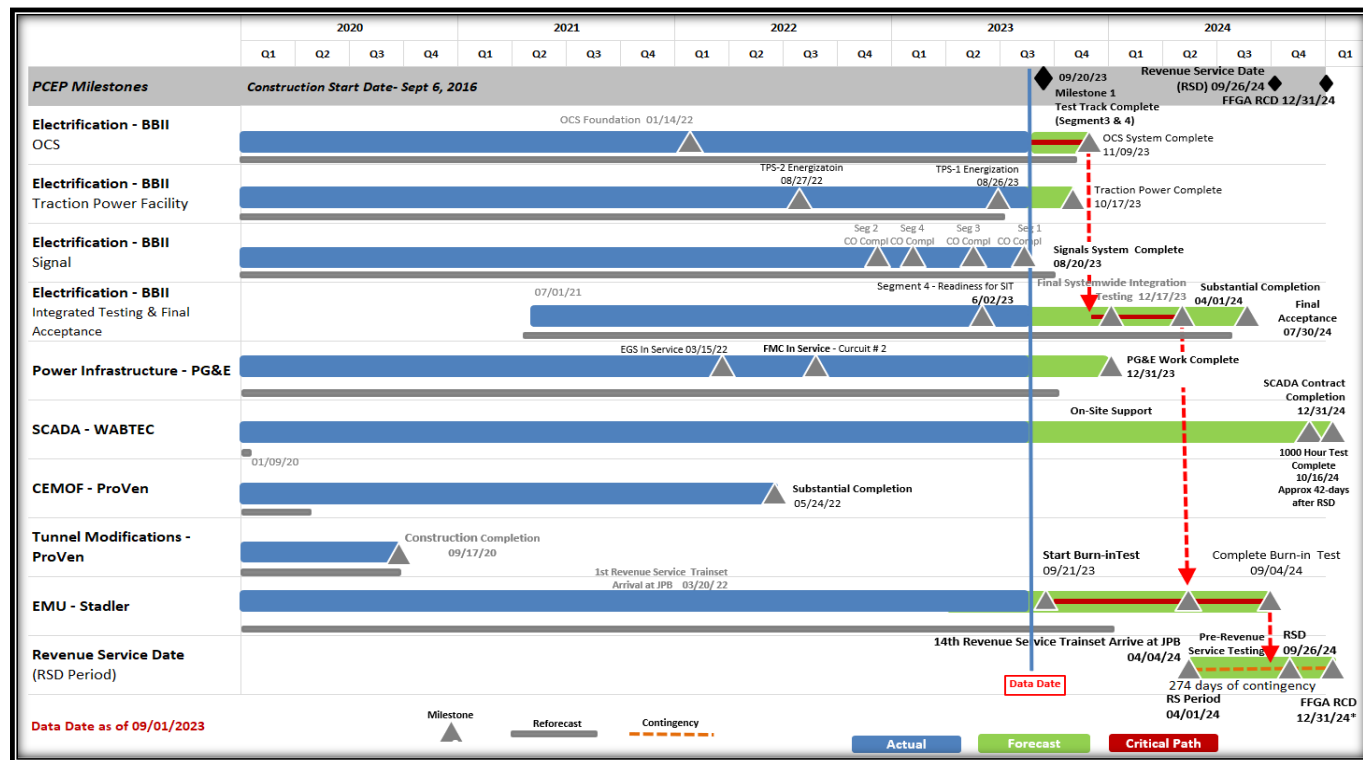


Figure 3-1. Master Program Summary Schedule

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3.2 Critical Path Analysis

The current critical path has changed this month to Resolve Grounding of Foundations, Schedule Track Access for Grounding of Foundations, Install Grounding of Foundations, Finish Bonding & Grounding Segment 2, followed by the 76-day Project Schedule Contingency, Substantial Completion, and Final Acceptance. The calculated Total Float of the Longest Path equaled 1-day (as shown below).

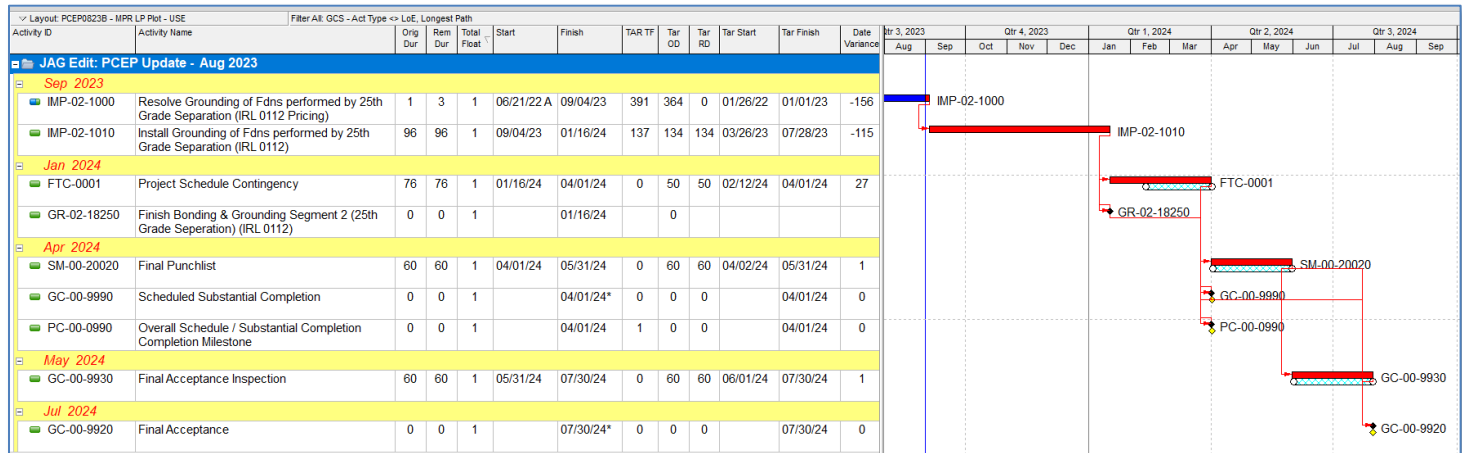


Figure 3-2. Critical Path Schedule

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3.3 Schedule Contract Milestone Analysis

Contractor	Milestones	Reforecast Dates (Dec 2022)	Current Dates (Aug 2023)	Milestone Finish Date Variance	Total Float	Remarks
BBII	Segment 4 Completion (Final Short Circuit Test Report Delivered to JPB)	2/5/2023	5/31/2023	-114	N/A	Delayed by the failed short circuit testing which has delayed the EMU live runs within Segment 4. Note: This finish date does not include the Guadalupe Bridge scope of work.
BBII	System Integration Testing Start (Segment 4)	4/10/2023	6/5/2023	-55	N/A	JPB Continues to perform SIT testing in Segment 3 and 4.
BBII	Signal Cutovers and Systems Completion	8/20/2023	8/20/2023	1	0	
BBII	Traction Power Substation #1 Energization	9/12/2023	8/26/2023	18	0	
BBII	Completion of Milestone 1 (Segments 3 and 4)	5/28/2023	9/20/2023	-114	-114	Delayed by the failures in the Segment 3 and 4 integrated testing and delays in issuing the certificate of compliance for Milestone 1. This milestone signifies that all of the structural and short circuit testing is complete, and this segment is ready for live run testing.
BBII	OCS Construction Completion	10/25/2023	11/9/2023	-15	51	Delayed by Segment 2 High Pot Testing (MP 26 Dumbarton to MP 29 Alma) and Punch List work.
BBII	System Integration Testing Completion	11/18/2023	12/17/2023	-29	5	Delayed by SC Test 4 – TPS 2 Short Circuit Test and Segments 1 and 2 Live Run Testing
Stadler	14th Trainset Arrival at JPB Site	10/12/2023	4/4/2024	-175	-9	Delayed by Stadler experiencing multiple problems obtaining parts and subassemblies from their Suppliers. The date committed to deliver the first 14 Trainsets by 22-Mar-24 slipped by 13 days to 04-Apr-2023 from previous update (Stadler-056_NC_0723A).
BBII	Scheduled Substantial Completion	4/1/2024	4/1/2024	0	0	
BBII	Scheduled Final Acceptance	7/30/2024	7/30/2024	0	0	
JPB	Revenue Service Date (RSD)	9/26/2024	9/26/2024	0	N/A	
JPB	FFGA Revenue Completion Date (RCD)	12/31/2024	12/31/2024	0	N/A	

Figure 3-3. Contract Milestone Analysis

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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 August 31, 2023.

4.2 Program Budget and Cost

Table 4-1. Budget Summary by Project

Description of Work	Current Budget (A) ¹	Cost This Month (B) ²	Cost To Date (C) ³	Estimate To Complete (D)	Estimate At Completion (E) = (C) + (D)	Variance at Completion (F) = (A) – (E)
Electrification	\$1,749,139,439	\$22,665,314	\$1,623,608,034	\$131,065,588	\$1,754,673,622	(\$5,534,183) ⁴
EMU	\$693,551,258	\$1,633,936	\$525,588,411	\$162,428,664	\$688,017,075	\$5,534,183
PCEP TOTAL	\$2,442,690,697	\$24,299,250	\$2,149,196,445	\$293,494,251	\$2,442,690,697	\$0

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.

⁴ Column F "Variance at Completion" includes forecasted transfer of contingency from EMU to Electrification project.

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 by Major Elements

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	\$1,096,992,463	\$15,850,326	\$982,293,223	\$114,583,240	\$1,096,876,463
EMU Procurement	\$556,072,601	\$564,269,610	\$716,661	\$433,756,668	\$131,229,603	\$564,986,271
Minor Construction Contracts (Tunnel, CEMOF, SCADA, Non-BBI OCS)	\$67,055,072	\$68,248,611	\$46,972	\$64,943,792	\$2,382,275	\$67,326,067
Real Estate Acquisition & Support	\$34,914,177	\$34,914,177	\$91,040	\$24,532,918	\$10,381,259	\$34,914,177
PG&E, Utilities	\$132,088,994	\$132,088,994	\$1,356,986	\$206,992,015	-\$78,732,620	\$128,259,394
Management Oversight & Support	\$312,699,697	\$315,007,767	\$2,997,769	\$281,702,098	\$33,305,669	\$315,007,767
TASI Support	\$114,488,767	\$114,488,767	\$1,746,623	\$104,827,750	\$31,700,719	\$136,528,469
Finance Charges	\$9,898,638	\$9,898,638	\$286,488	\$9,740,871	\$157,767	\$9,898,638
Insurance	\$6,581,851	\$6,581,851	\$0	\$6,291,001	\$290,850	\$6,581,851
Other Required Projects & Services	\$9,084,176	\$10,484,176	\$335,501	\$5,555,762	\$5,128,414	\$10,684,176
Environmental Mitigation	\$14,438,866	\$13,038,866	\$44,530	\$1,294,369	\$11,544,497	\$12,838,866
Caltrain Capital Overhead (ICAP)	\$48,217,887	\$48,217,887	\$826,354	\$27,265,978	\$20,951,909	\$48,217,887
Contingency	\$40,000,089	\$28,458,888	\$0	\$0	\$10,570,669	\$10,570,669
Total	\$2,442,690,697	\$2,442,690,697	\$24,299,250	\$2,149,196,445	\$293,494,251	\$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.

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

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	\$36,039	\$1,253,451	\$2,246,549
3	Different Site Condition for Duct bank	\$2,800,000	\$0	\$435,798	\$2,364,202
4	Condition of existing Fiber backbone infrastructure	\$3,150,000	\$0	\$402,275	\$2,747,725
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	\$507,167	\$31,405
8	EMI Nonconformance by EMU Vendor	\$750,000	\$0	\$13,184	\$736,817
9	Reed Street Cutover	\$90,000	\$0	\$0	\$90,000
10	Availability of low voltage power for cutover testing	\$1,120,000	\$636,985	\$2,381,123	-\$1,261,123
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	\$157,418	\$157,418	\$10,083
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	\$353,277	-\$203,277
18	Impact from Caltrain other capital or third-party projects	\$2,166,683	\$0	\$888,836	\$1,277,846
19	Track access delay for BBII Construction	\$1,800,000	\$79,089	\$750,441	\$1,049,559
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	\$845,576	-\$345,576
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	\$30,055	\$2,118,794	\$9,881,207
NA	Unidentified	\$54,179	\$0	\$0	\$54,179
BBII Risk Pool Total		\$50,000,000	\$939,586	\$10,760,959	\$39,239,041

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 as well as transfers from contingency forecasted to be needed.

Table 4-4. Program Contingency Drawdown Balance

Change Order ID	Description	Contingency
PCEP Contingency Budget		\$40,000,088
STA-056-CCO-038	Allowance for Electric Power Cost at TTCI	(\$132,365)
STA-056-CCO-041	Manual Phase Break	(\$43,520)
STA-056-CCO-042	Stadler Project Time Extension	(\$8,021,124)
ARINC-061-CCO-005	Traction Power Facility SCADA Database Changes	(\$1,036,122)
PROV-070-CCO-056	Proven Tunnels Final Settlement	\$1,000,000
PROV-071-CCO-069	Proven CEMOF Final Settlement	(\$1,000,000)
BT-027D	Legal Support FY23 - PG&E Counsel	(\$200,000)
BT-029D	GFI Electrification FY23-24 Additional Staff	(\$2,108,070)
STA-056-CCO-053	Stadler – Passenger Convenience Outlets	(\$716,661)
Remaining Contingency		\$27,742,227
BT-049	CNPA – Mary Ave Pre-emption (Non-PCEP)	\$116,000
PG&E-042-BT-5	PG&E – Supplemental Agreement 4 – EAC Update	\$3,829,600
BT-035C	TASI Support – Electrification (2023-2024) rev1	(\$22,039,703)
PROV-070-CLOSE	Proven Tunnels – Close out of Final Actuals	\$184,910
PROV-071-CLOSE	Proven CEMOF – Close out of Final Actuals	\$580,217
Forecasted Remaining Contingency		\$10,413,251

The total Program Contingency as of the December 2021 Re-Baseline Budget totaled \$90M including Allocated and Unallocated Contingency, and BBII Risk Pool. Table 4-5 summarizes the current remaining and forecasted contingency balance as of the monthly update.

Table 4-5. Overall Program Contingency

	Total E = (A+D)	Shared Risk Pool with BBII	Program Contingency		
		BBII Risk Pool (A)	Allocated (B)	Unallocated (C)	Subtotal D = (B+C)
PCEP Contingency	\$90,000,088	\$50,000,000	\$24,115,581	\$15,884,507	\$40,000,088
Drawn Contingency	(\$23,018,820)	(\$10,760,959)	(\$8,521,124)	(\$3,736,738)	(\$12,257,862)
Remaining Contingency	\$66,981,268	\$39,239,041	\$15,594,457	\$12,147,769	\$27,742,227
Forecasted Contingency	(\$17,328,976)	\$0	(\$13,432,281)	(\$3,896,694)	(\$17,328,976)
Forecasted Remaining Contingency	\$49,652,292	\$39,239,041	\$2,162,176	\$8,251,075	\$10,413,251

4.4 Electrification Design Builder Contract Incentives

The Global Settlement with BBII also includes incentives based on Milestone completions and remaining contract incentives. Table 4-5 provides a status of Design-Build Contractor incentives Budgeted, Awarded, and remaining Balance.

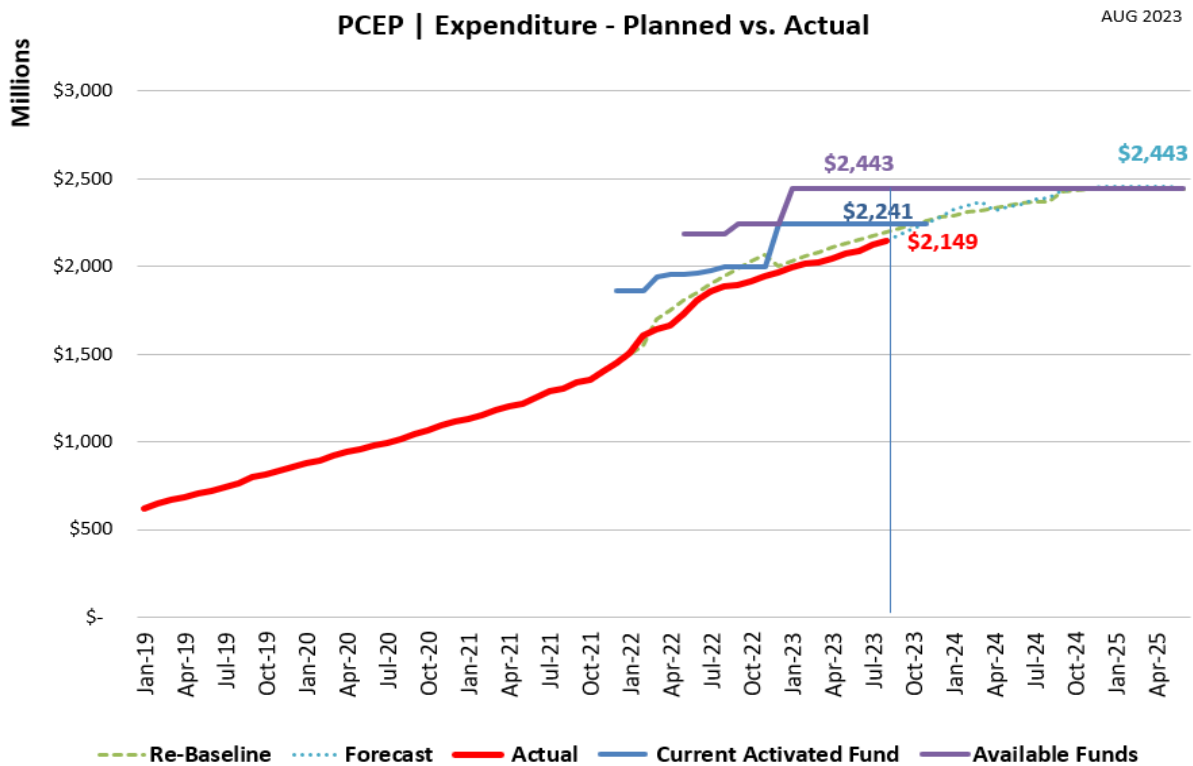
Table 4-6. BBII Incentives

Incentives	Budgeted	Awarded	Balance
Contract Incentive:			
Quality	\$1,250,000	\$1,000,000	\$250,000
Safety	\$2,500,000	\$1,000,000	\$1,500,000
Community Outreach	\$2,500,000	\$2,000,000	\$500,000
DBE	\$900,000	\$0	\$900,000
Total Contract Incentive	\$7,150,000	\$4,000,000	\$3,150,000
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	\$0	\$15,000,000

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 4-7. Cost and Funding Issues Identified, and Actions Taken for August 2023

Issues	Actions
Late receiving of PG&E \$99 million reimbursement	• Work with PG&E to project reimbursement date.

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/CCO

The following Shared Risk items were executed in August 2023:

- Track Access Delays April 2023 was executed on August 14, 2023, for \$32,845.
- Track Access Delays for May 2023 was executed on August 14, 2023, for \$46,244.
- S2 Low Voltage Power Connection is not Available to Support Cutover April 2023 was executed on 8/3/23 for \$217,404.
- S2 Low Voltage Power Connection is not Available to Support Cutover May 2023 was executed on 8/3/23 for \$224,697.
- S2 Low Voltage Power Connection is not Available to Support Cutover June 2023 was executed on 8/3/23 for \$194,884.
- MP49.1-01 Foundation Issue was executed on August 23, 2023, for \$5,230.
- S1A and S1B Tunnel Portal Surge Arrestors was executed on August 14, 2023, for \$152,418
- Environmental Support from Dudek for Programmatic Agreement was executed on August 10, 2023, for \$30,055.
- CCO-044 EMU Convenience Outlet Current Limit was executed on August 16, 2023, for \$955,548.
- CCO-045 Option 2 EMU Trainsets was executed on August 14, 2023, for \$183,218.
- CCO-046 Option 2 BEMU Trainsets was executed on August 14, 2023, for \$60,976,504.

5.2.2 CMB Approved Items

- No items to report for this period.

5.2.3 Upcoming Change Orders/Shared Risk Items

- EMU Convenience Outlet Modification
- Debris Pile Removal at FDN 46.1-19
- Tap Settings Change (to 26.5kv)
- Pole Recoloring at 4th & King Station
- 4th & King Flagpole Removal

5.3 Issues

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

Issues	Actions
Segment 4 Maintenance Option in the existing BBII Contract was never exercised. Maintenance of OCS/TPS for Milestone 1 limits (Diridon to San Antonio) will be needed once Milestone 1 is complete and once Caltrain is using it for EMU burn in under 25kV.	• Define EMU testing and burn in work schedule - Completed. • BBII provides isolation and protection once Segment 4 is powered up. • Prepare Request for Proposal for OCS/TPS SOW – Completed. • Maintenance Service for public procurement strategy has changed to implementing amendment to railroad operator and maintainer TASI for OCS/TPS maintenance work. • Develop evaluation criteria for TASI Maintenance Service proposals. • Recommend for award and obtain JPB board approval.