

Caltrain Modernization Program Peninsula Corridor Electrification Project (PCEP)



Executive Monthly Progress Report

November 30, 2023

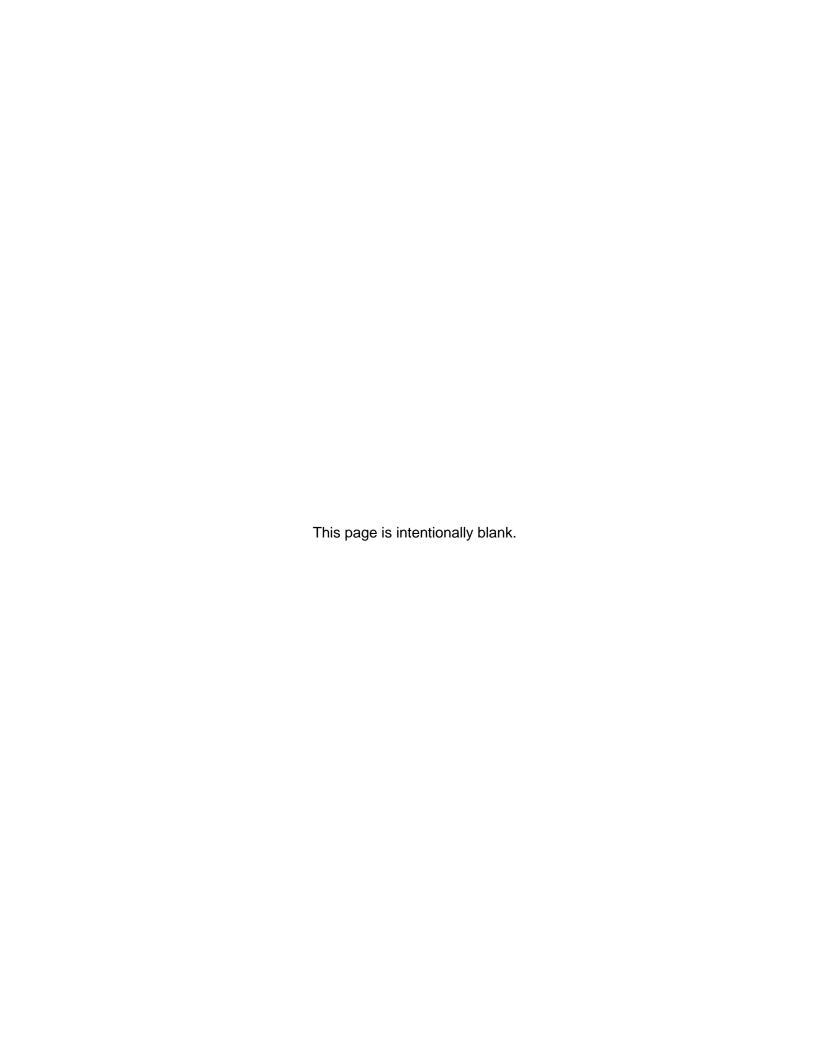
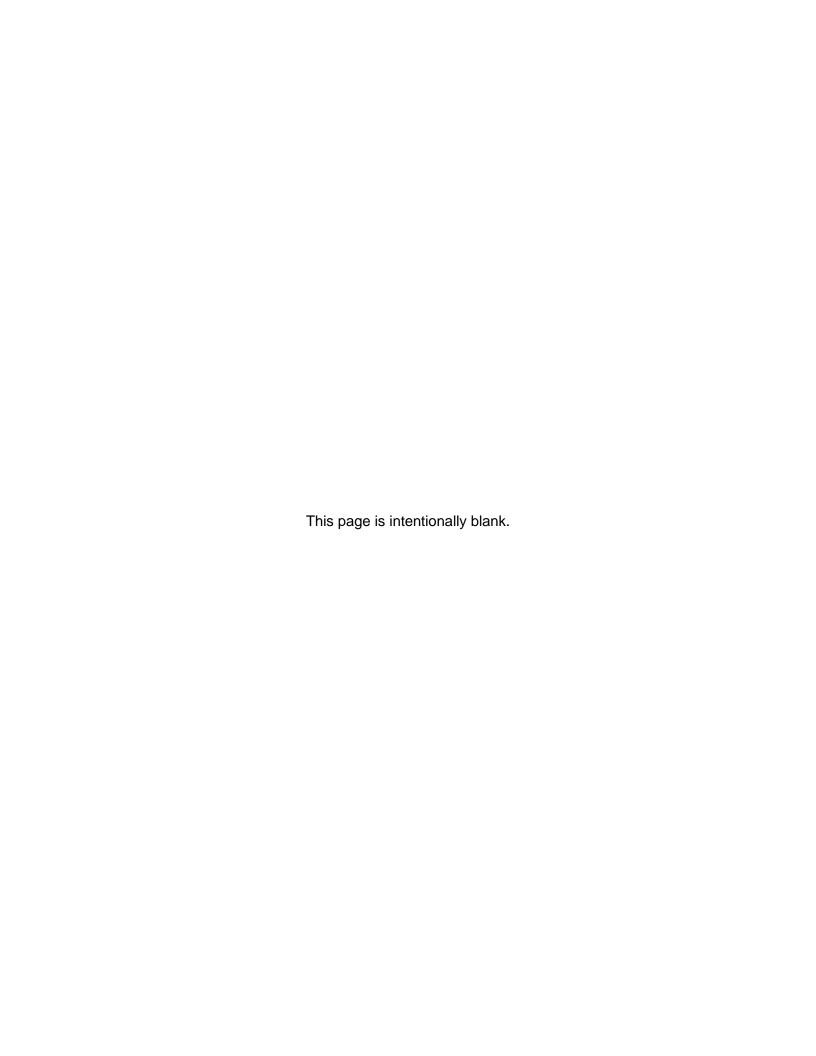


TABLE OF CONTENTS

1.0	Exec	cutive Summary	1-1
	1.1	Introduction	1-1
	1.2	Program Cost and Budget	1-1
	1.3	Program Progress and Schedule	1-1
	1.4	Change Management Board (CMB)	1-1
	1.5	This Month's Accomplishments	1-2
	1.6	Upcoming work	1-3
	1.7	Critical Items	1-3
	Table	e 1-1. Critical Issues and Actions	1-4
2.0	Safe	ty	2-1
	Com	pleted Work	2-1
	Upco	oming Work	2-1
3.0	IMS	Program Schedule	3-1
	3.1	Introduction	3-1
	3.2	Critical Path Analysis	3-1
	3.3	Schedule Contract Milestone Analysis	3-1
4.0	Cost	and Budget	4-1
	4.1	Introduction	
	4.2	Program Budget and Cost	4-1
	Table	e 4-1. Budget Summary by Project	4-1
	Table	e 4-2. Budget Summary by Major Elements	4-1
	4.3	Program Shared Risk Pool and Contingency	4-1
	Table	e 4-3. Shared Risk Pool Status as of November 2023	4-2
	4.4	Electrification Design Builder Contract Incentives	4-3
	Table	e 4-6. BBII Incentives	4-4
	4.5	Program Cash Flow and Funding	4-4
	4.6	Issues	4-5
	Table	e 4-7. Cost and Funding Issues Identified, and Actions Taken for November 5	2023 4-
5.0	Char	nge Management	5-1
	5.1	Introduction	5-1
	5.2	Change Orders/Shared Risk Pool	5-1
	5.3	Issues	5-2



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 November 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 November 2023, a total of \$15M has been drawn down from the Shared Risk Pool of \$50 million to-date. In November 2023, \$2,295,630.00 was drawn from the Shared Risk Pool.
- As of November 2023, a total of \$34.3M has been drawn from the project contingency of \$40 million. In November 2023, \$0 was drawn from project contingency.
- As of November 2023, no new awards have been made from the Project incentive pool of \$18.5 million.
- As of November 2023, no incentive was issued from the milestone incentive pool of \$15 million. The team has concluded evaluation of signal cutover milestone incentives and will award in December to the designbuild contractor.

1.3 Program Progress and Schedule

As of November 30, 2023, the overall project completion is 89.77%. 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 November 2023, the following items were brought to the CMB for approval:

- IRL 282 Segment 3 LV Power Connections
- IRL 313 Theft Replacement

1.5 This Month's Accomplishments

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

- Completed all 2SC Signal and Crossing cutovers milestone incentive evaluation.
- Completed all mainline OCS regulation work.
- Completed path to completion schedule effort and established remaining quantity tracker for OCS regulation and testing.
- Continued to coordinate low voltage power drop applications with PG&E and utilizing generators to support project testing and cutovers.
- Continued asphalt cover implementation for impedance bonds to mitigation theft impact.
- 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 all OCS weekend bus bridge for 2023, no bus bridges required for November and December of 2023.
- Held Monthly CMB meeting for program status and change order approval.
- Completed and received FTA Programmatic Agreement (PA) amendment approval. The Caltrain PA agreement has been extended and executed.
- 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.
- Participated TIRCP audit performed by the State.
- Since October 2nd, 2023, TASI has been performing isolation and protection service for the Milestone 1 limits.
- Finalized short circuit test sequence and test dates with PG&E support.
- Continue project close out effort and track all punch list items in a centralized database.
- Received Temporary Use Permit (TUP) for Milestone 1 limits (Diridon to San Antonio) and Drill Track, Caltrain completed two EMU burn in Test on main line.
- Commenced Caltrain broadband equipment on board installation prototype, and remaining EMU delivery schedule was revised to incorporate broadband equipment installation work.
- There are a total of 6 EMU trainsets on Caltrain property.
- Completed Guadalupe OCS wire Installation, regulation and testing will be completed early 2024.

1.6 Upcoming work

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

- Hold FTA Quarterly Progress Meeting in December 2023.
- Complete all OCS Regulations for Segments 1 and 2.
- Complete Segments 1 and 2 Sectionalization Testing.
- Complete double traction Testing with two EMUs.
- Complete power pull aways testing.
- Perform the remaining 5 short circuit testing with support from PG&E.
- Complete Guadalupe OCS installation and test once Guadalupe project hands off MT2 in November of 2023.
- Continue to coordinate with Broadband Project, work with vehicle manufacturer and monitor 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.
- Continue operations planning, ambassador, and rail service planning minor issues efforts for Segment 1 and 2 live runs.
- Continue to coordinate with PG&E on low voltage power drop applications, and distribution line de-energization work.
- Perform joint punch list walks for all remaining work.
- Hold Monthly CMB meeting for program status and change order approval.
- Compete certification of conformance for Milestone 1 limits.
- Complete EMU revenue service maintenance program, EMU storage plan, diesel fleet exit plan, and fleet management plan.
- Complete Programmatic Agreement (PA) amendment and finalize burial agreement and treatment plan.
- Continue EMU acceptance testing (burn in).
- Two more EMUs will be delivered in early 2024 and the remaining will be delivered 2nd and 3rd quarter of 2024 in support of September Revenue Service.
- Complete end to end full corridor live runs prior to substantial completion.
- Finalize Substantial Completion and Final Acceptance Check List and issue revised project close out contract specification.

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

1.7 Critical Items

As of November 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

Table 1-1. Critical is:	Table 1-1. Critical Issues and Actions						
Critical Issues	Actions						
Overhead Contact System (OCS) installation (regulation work) 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. Completed 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. Segment 2 damaged wire due to winter storms were repaired – Completed. Continue to address OCS quality issues through joints walks and field verification – on-going 						
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 in February of 2024. Theft of impedance bond or grounding cables may	 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 – completed. Perform Short circuit tests - February 2024 						
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. 						

Executive Summary 1-4 November 30, 2023

Peninsula Corridor Electrification Project

Monthly Progress Report – November 2023

Critical Issues	Actions
	 Implement asphalt cover for impedance bonds that have been repeatedly stolen. – on-going Purchase anti-theft cable – on-going.

Executive Summary 1-5 November 31, 2023

2.0 SAFETY

There were 0 reportable injuries in November 2023 keeping the total reportable injuries to 8 for the year. The Reportable Injury Rate (RIR) for 2023 YTD is currently 1.77. Overall, since the project's construction started in 2017, the RIR is at 1.93, 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 was completed in October. In all 92 classes were given to emergency responders with a total number of 815 attendees.

Police Departments along the corridor are also currently being scheduled by the Transit Police

to receive this training also.

In addition to the 815 emergency responders trained there were 242 third party and Tenant railroad employees trained for a total of 1057.

A "Live" emergency preparedness drill was held on December 10th at the Bayshore Station. Members of North County Fire, South SF Fire and San Francisco Fire Departments all participated in the drill and EMU familiarization.

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 October 2023 Progress Schedule (which was formally submitted on 12/19/2023) as well as the Stadler October 2023 EMU Progress Schedule. The Revenue Service Date (RSD) is anticipated to remain as September 26, 2024, depending on if the final four Trainsets can be complete Burn-In within two months of delivery in July 2024. If the completion of fourteen Trainsets can be completed prior to September 2024, then the Full Funding Grant Agreement (FFGA) Revenue Completion Date (RCD) would still remain on December 31, 2024.

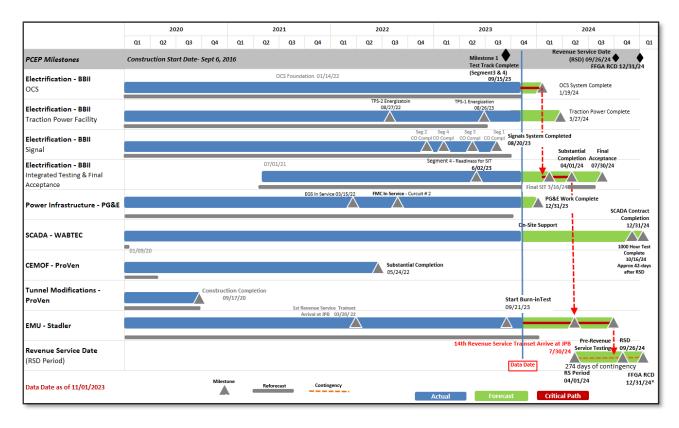


Figure 3-1. Master Program Summary Schedule

3.2 Critical Path Analysis

The current critical path changed this month to the completion of Category A & B Punchlist (TPS1 to SWS), followed by OCS Sectionalization Testing in Segments 1 and 2. Afterwards, the completion of Sectionalization documentation, the Segment 1 and 2 Live Run Testing commences and leads to followed by the 0-day Project Schedule Contingency (with 9-days of Total Float), Substantial Completion, and Final Acceptance. The Longest Path plot (shown below) represents the as submitted critical path for the BBII Draft October 2023 Update schedule.

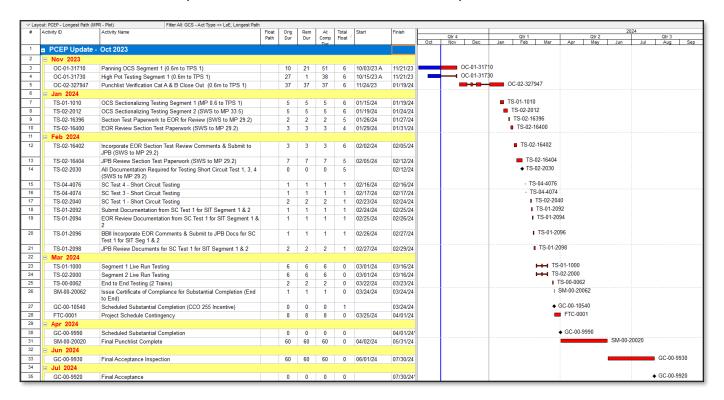


Figure 3-2. Critical Path Schedule

3.3 Schedule Contract Milestone Analysis

Contractor	Milestones	Reforecast Dates (Dec 2022)	Current Dates (Oct 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	-115		Completed
BBII	System Integration Testing Start (Segment 4)	4/10/2023	6/5/2023	-56		Completed
BBII	Signal Cutovers and Systems Completion	8/20/2023	8/20/2023	0		Completed
BBII	Traction Power Substation #1 Energization	9/12/2023	8/26/2023	17		Completed
BBII	Completion of Milestone 1 (Segments 3 and 4)	5/28/2023	9/15/2023	-110		Completed
BBII	OCS Construction Completion	10/2/2023	1/19/2024	-109	23	This date does not include Guadalupe Bridge work.
BBII	OCS Construction Completion (Guadalupe Bridge)	10/25/2023	12/18/2023	-54	2	This milestone included the delivery date of Guadalupe Bridge back to BBII on 10/21/2023.
BBII	System Integration Testing Completion	11/18/2023	3/16/2024	-119	0	The Final SIT seems to have been pushed by the creation of the Project Completion Schedule which now includes all remaining scope of work to achieve Substantial Completion.
BBII	Scheduled Substantial Completion	4/1/2024	4/1/2024	0	0	Project Contingency has been reduced to 9-days of Total Float.
Stadler	14th Trainset Arrival at JPB Site	10/12/2023	7/30/2024	-292	-10	Stadler is no longer committing to deliver the 14th Trainset by end of March 2024. Implementation of Broadband has caused impacts to the final four (4) Trainsets.
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

4.0 COST AND BUDGET

4.1 Introduction

This section presents an update on program cost and budget. On December 6th, 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 November 30, 2023.

4.2 Program Budget and Cost

Table 4-1. Budget Summary by Project

Description of Work	Current Budget	Cost This Month	Cost To Date	Estimate To Complete	Estimate At Completion	Variance at Completion
	(A) ¹	(B) ²	(C) ³	(D)	(E) = (C) + (D)	(F) = (A) - (E)
Electrification	\$1,754,673,622	\$13,477,369	\$1,676,868,512	\$77,805,110	\$1,754,673,622	\$0
EMU	\$688,017,075	\$1,262,501	\$553,864,770	\$134,152,305	\$688,017,075	\$0
PCEP TOTAL	\$2,442,690,697	\$14,739,870	\$2,230,733,282	\$211,957,415	\$2,442,690,697	\$0

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

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	\$1,097,149,881	\$8,710,020	\$1,019,119,816	\$75,839,065	\$1,094,958,881
EMU Procurement	\$556,072,601	\$564,986,271	\$0	\$457,591,495	\$107,394,776	\$564,986,271
Minor Construction Contracts (Tunnel, CEMOF, SCADA, Non- BBI OCS)	\$67,055,072	\$68,091,194	\$16,410	\$64,972,201	\$2,353,867	\$67,326,067
Real Estate Acquisition & Support	\$34,914,177	\$34,914,177	\$5,782	\$24,591,286	\$10,322,891	\$34,914,177
PG&E, Utilities	\$132,088,994	\$132,088,994	\$485,135	\$207,541,235	-\$79,281,841	\$128,259,394
Management Oversight & Support	\$312,699,697	\$315,007,767	\$2,618,395	\$290,143,850	\$24,863,917	\$315,007,767
TASI Support	\$114,488,767	\$136,528,469	\$2,613,476	\$113,165,299	\$27,712,024	\$140,877,323
Finance Charges	\$9,898,638	\$9,898,638	\$410,469	\$10,636,546	\$831,984	\$11,468,530
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	-\$28,893	\$5,993,101	\$4,691,075	\$10,684,176
Environmental Mitigation	\$14,438,866	\$13,038,866	\$10,600	\$1,304,969	\$9,964,005	\$11,268,974
Caltrain Capital Overhead (ICAP)	\$48,217,887	\$48,217,887	-\$101,523	\$29,382,483	\$18,835,405	\$48,217,887
Contingency	\$40,000,089	\$5,702,525	\$0	\$0	\$8,139,397	\$8,139,397
Total	\$2,442,690,697	\$2,442,690,697	\$14,739,870	\$2,230,733,282	\$211,957,415	\$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

Cost and Budget 4-1 November 30, 2023

^{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.

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 November 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	\$0	\$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	-\$20	\$402,255	\$2,747,745
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	\$111,765	-\$21,765
10	Availability of low voltage power for cutover testing	\$1,120,000	\$797,582	\$3,178,705	-\$2,058,705
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	-\$5,000	\$152,418	\$15,083
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	\$113,563	\$1,933,131	\$233,552
19	Track access delay for BBII Construction	\$1,800,000	\$209,841	\$1,074,592	\$725,408
20	Additional light Maintenance and Protection Needs	\$280,000	\$0	\$180,505	\$99,495
21	Crossing Protection	\$220,000	\$0	\$102,334	\$117,666
22	Power facilities	\$500,000	\$71,717	\$917,293	-\$417,293
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	\$1,107,947	\$4,045,609	\$7,954,391
NA	Unidentified	\$54,179	\$0	\$0	\$54,179
	BBII Risk Pool Total	\$50,000,000	\$2,295,630	\$15,048,237	\$34,951,763

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.

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)
BT-035C	TASI Support – Electrification (2023-2024) rev1	(\$22,039,703)
	Remaining Contingency	\$5,702,524
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
PROV-070-CLOSE	Proven Tunnels – Close out of Final Actuals	\$184,910
PROV-071-CLOSE	Proven CEMOF – Close out of Final Actuals	\$580,217
BBII-053-BT-CNPA	Non-PCEP Actuals-BBII Historical Changes Incl in Re-Baseline	\$2,075,000
BT-057	TASI – TASI EMU Maintenance & Material (Pre-Revenue)	(\$4,348,854)
	Forecasted Remaining Contingency	\$8,139,397

Note: EAC Contingency reflects forecast contingency.

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

		Shared Risk Pool with BBII	Program Contingency		
	Total E = (A+D)	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	(\$49,345,801)	(\$15,048,237)	(\$21,953,405)	(\$12,344,159)	(\$34,297,564)
Remaining Contingency	\$40,654,287	\$34,951,763	\$2,162,176	\$3,540,348	\$5,702,524
Pending Changes	\$2,288,325	(\$148,547)	\$0	\$2,436,873	\$2,436,873
Forecasted Remaining Contingency	\$42,942,612	\$34,803,216	\$2,162,176	\$5,977,221	\$8,139,397

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.

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

\$500

\$-

---- Re-Baseline ····· Forecast =

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.

\$2,500 \$2,443 \$2,443 \$2,443 \$2,347 \$2,347 \$2,331 \$3,000 \$1,500 \$1,000

Jul-21

Figure 4.1. Expenditure - Funding Cash Flow

Actual —— Current Activated Fund —— Available Funds

4.6 Issues

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

Issues	Actions
Late receiving of PG&E \$99 million reimbursement	 PG&E reimbursement protocol has been established, CPUC has approved final rate, the first PG&E reimbursement is scheduled by March 15, 2024.

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 November 2023:

- TPS-1 Metering Enclosure Fencing was executed on 11/7/2023 for \$71,717.
- Anti-theft Cable (Material Only) was executed on 11/7/2023 for \$28,473.
- S3 Low Voltage Power Connections Not Available to Support Cutover (Nov 2021 thru Sep 2023) was executed on 11/13/2023 for \$797,582.
- Track Access Delays for Aug 2023 was executed on 11/16/2023 for \$131,486.
- Track Access Delays for Sep 2023 was executed on 11/16/23 for \$46,740.
- Theft ID thru June 9, 2023 (R7) was executed on 11/17/2023 for \$1,079,474.
- CEMOF Yard OCS Changes was executed on 11/20/2023 for \$113,563.
- CCO-260 Contract Language Revision for Intermediate Milestone 1 was executed on 11/02/2023 for no additional cost.

5.2.2 CMB Approved Items

- IRL 282 Segment 3 LV Power Connections
- IRL 313 Theft Replacement

5.2.3 Upcoming Change Orders/Shared Risk Items

- Isolation and Protection for Railroad
- Debris Pile Removal at FDN 46.1-19
- Tap Settings Change (to 26.5kv)
- Pole Recoloring at 4th & King Station
- 4th & King Flagpole Removal
- Testing for Step & Touch Potential at TPFs
- Test Train Passing CEMOF Isolation Limits
- Segment 3 Low Voltage (Generators)
- Additional MRS Signal Training
- New Utility Crossing Oyster Point

5.3 Issues

Table 5-1. Change Management Issues Identified and Actions Taken for November 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 - Completed. BBII provides isolation and protection once Segment 4 is powered up – completed Prepare Request for Proposal for OCS/TPS SOW – Completed by Rail Operations 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 - Completed. Recommend for award and obtain JPB board approval. TASI performed isolation and inspection service for
	milestone 1 limits since October 2 nd 2023