



# Caltrain Modernization Program Peninsula Corridor Electrification Project (PCEP)



## Executive Monthly Progress Report

August 31, 2022

This page is intentionally blank.

**TABLE OF CONTENTS**

1.0 Executive 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..... 1-1

    1.6 Upcoming work ..... 1-2

    1.7 Critical Items ..... 1-3

2.0 Safety..... 2-1

3.0 IMS Program Schedule..... 3-1

    3.1 Introduction ..... 3-1

    3.2 Critical Path ..... 3-1

    3.3 Schedule Issues ..... 3-1

    3.4 Contract Milestones ..... 3-1

4.0 Cost and Budget..... 4-1

    4.1 Introduction..... 4-1

    4.2 Program Budget and Cost..... 4-1

    4.3 Program Shared Risk Pool and Contingency ..... 4-2

    4.4 Electrification Design Builder Contract Incentives ..... 4-3

    4.5 Program Cash Flow and Funding..... 4-3

    4.6 Issues ..... 4-4

5.0 Change Management..... 5-1

    5.1 Introduction..... 5-1

    5.2 Change Orders ..... 5-1

    5.3 Issues ..... 5-2

This page is intentionally blank.

## **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 re-baselined the program budget and schedule in December of 2021. Caltrain completed a thorough assessment of all aspects of the program including cost, schedule, risks and organization. Caltrain 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. As of August 2022, the project is on budget:

- The current project total cost at completion (EAC) is the same as Board adopted budget of \$2.44 billion.
- As of August 2022, a total of \$2.81M has been drawn down from the Shared Risk Pool of \$50 million.
- As of August 2022, a total of \$1.17M has been drawn from the project contingency of \$40 million.
- As of August 2022, no new awards have been made from the Project incentive pool of \$18.5 million.

### **1.3 Program Progress and Schedule**

As of August 31, 2022, the overall project completion is 76.16%. The current program schedule is still on track with PCEP's substantial completion date of April 2024 and Revenue Service by September 2024.

### **1.4 Change Management Board (CMB)**

In August 2022, the following no-cost change orders were brought to CMB for information only:

- Revision to Special Provision 01700 Contract Closeout.
- Revision to permissible overhead and profit markup for Subcontractors performing out-of-scope work.
- Revision to Intermediate Milestone No. 1.

### **1.5 This Month's Accomplishments**

The project team has completed the following notable activities for the month of August 2022:

- Executed transmission operating load agreement (TOLA) with PG&E.
- Held Executive Partnering session with BBII, Rail Operations and TASI.

- Developed Segment 4 energized rail isolation and protection procedure for Rail Operations and TASI's review and comments.
- Energized TPS 2 line 1 on August 27, 2022.
- Continued safety special task force working group including TASI, Rail Operations and PCEP to address communications, process and procedure improvements.
- Completed in-depth 25kV OCS awareness training for all Caltrain staff, third party contractors and trained the trainers.
- Continued to interview experienced, qualified resources to fill key management positions for PCEP delivery. This month, the management team interviewed lead schedulers and a close out manager.
- Submitted regression test plan for previous 2SC cutover location application logic update to the FRA and received approval.
- Started installation and pretesting activities for Segment 2 SSF cutover.
- Finalized last major cutover plan for Segment 2 at Menlo Park, Redwood City, and Palo Alto.
- Continued providing PCEP progress updates to funding partners, leadership, elected officials, citizens, and business community.
- Completed EMU clearance testing.
- Received two more EMUs on site.
- Continue Rail Activation effort on path to energization for Segment 4 and CEMOF.
- Commenced Emergency Preparedness Plan (EPREP) and Standard Operating Procedures (SOPs) updates for electrified operations with TASI and Rail Operations.

## **1.6 Upcoming work**

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

- Finalize Segment 4 energized rail isolation and protection procedure and commence isolation and protection field training.
- Complete readiness review of Segment 4 with all stakeholders.
- Continue 25kV in-depth OCS awareness training for all TASI staff and tenant railroad trainers prior to full Segment 4 energization.
- Continue to hold CMB and PCEP partnering sessions and finalize procedures for the implementation of the Configuration Management Board from the Funding Partners Oversight Protocol.
- Continue to hold Executive and Project Team Partnering sessions.
- Hold track access and RWIC workshops with BBII, Rail Operations and TASI.
- Finalize Program Management Plan (PMP) based on FTA/PMOC comments.
- Energize TPS 2 line 2 on September 17, 2022 and commence OCS testing under power following completion of OCS awareness training.
- Energize Segment 4 and commence System Integration Testing and EMU Trainset 3 commissioning.
- Continue pursuing federal and local grants to close the funding gap.
- Hold Monthly CMB meeting for program status and change order approval.
- Complete 2SC application logic update for previous 2SC cutover locations.

- Complete Segment 2 cutover at SSF.
- Commence cutover planning effort for last major Segment 2 cutover at Ralston and Mayfield.
- Continue and complete Emergency Preparedness Plan (EPREP) and Standard Operating Procedure (SOPs) updates for electrified operations with TASI and Rail Operations.
- Complete Segment 4 sectionalization testing and be ready for EMU Testing under Power.

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

**1.7 Critical Items**

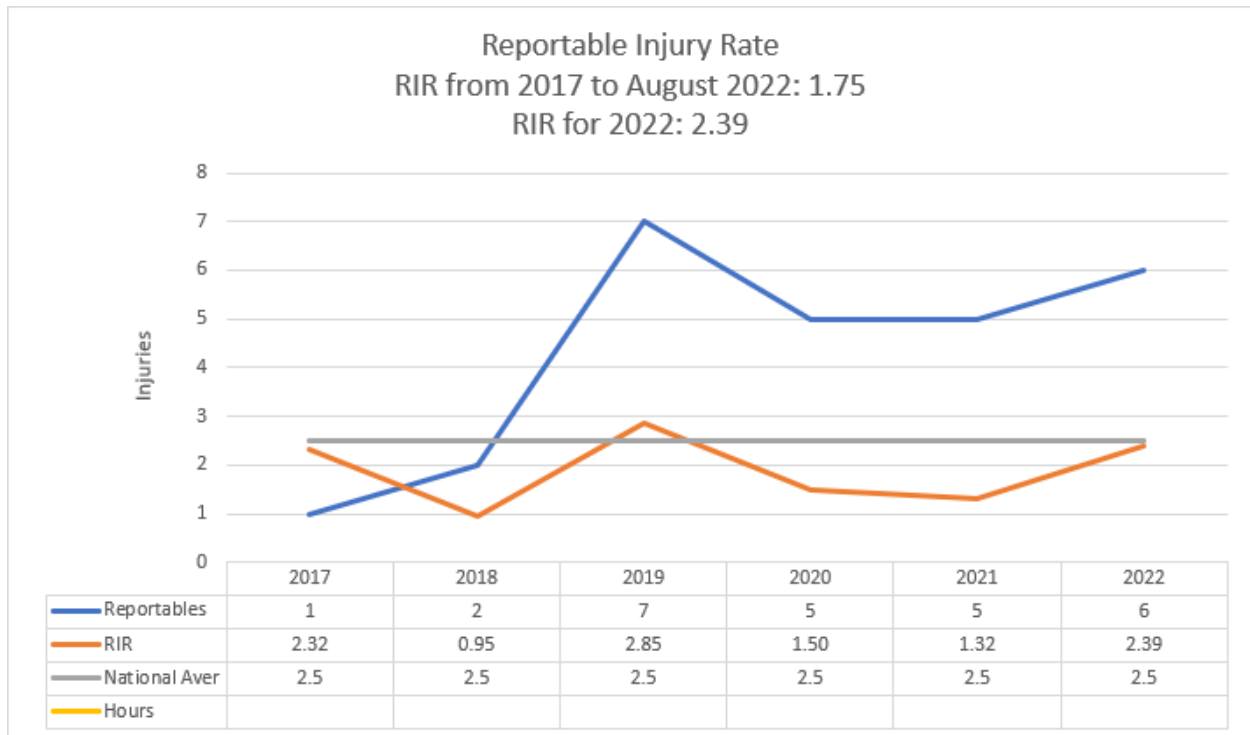
As of August 2022, the top critical items and related actions are highlighted below.

**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.	<ul style="list-style-type: none"> <li>• Additional BBII OCS crew training for regulation and variance in the OCS design / installation due to re-design &amp; accommodations to resolve foundation Differing Site Conditions (DSC) issues – Done.</li> <li>• Hiring additional BBII OCS staff members to prevent schedule slippage and help in future installation planning – Done.</li> <li>• Hold OCS construction scheduling recovery workshop for remaining OCS installation and testing – Done.</li> <li>• Increase OCS crews and OCS wiring equipment to increase productivity.</li> </ul>
Timely completion of Segment 2 Signal/2SC cutover	<ul style="list-style-type: none"> <li>• Perform comprehensive cutover planning; develop and track dashboard for each cutover, including design submittal, duct bank completion, flagger needs.</li> <li>• Work closely with Rail Operations to maximize track access, including weekend bus bridge.</li> <li>• Advance notification to the public on train schedule service changes for weekend shutdown.</li> <li>• Last major cutover is planned for December 5, 2022 through December 19, 2022.</li> </ul>
Funding of \$410 million program gap	<ul style="list-style-type: none"> <li>• Special task force is in place to identify federal and state grant opportunities to pursue.</li> <li>• Targeted advocacy is ongoing.</li> <li>• Prepare earmarks grant scope and application.</li> </ul>
Lack of field railway worker in charge (RWIC) for increased work crews	<ul style="list-style-type: none"> <li>• Design-builder brought in more watchmen for off-track work.</li> <li>• TASI to expedite RWIC hiring and training.</li> <li>• Explore third party field resource procurement path.</li> <li>• Assess operational impact for expanding work limits with track and time.</li> </ul>

**2.0 SAFETY**

There were two reportable injuries for the 70,011 hours worked for the month of August. The Reportable Injury Rate (RIR) for 2022 through August is 2.39, which is below the national average of 2.50. Overall, since the project’s inception, the RIR is at 1.75.



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

**2.1.1 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.

**2.1.2 Upcoming Work**

The Fire/Life Safety Committee continues to work with the San Jose and Santa Clara Fire Departments on Emergency Preparedness in preparation for the energization of Segment 4. The safety team is coordinating with Operations and the EMU team to develop an emergency responder safety familiarization EMU presentation. Once completed, the presentation will be shared with emergency responder jurisdictions



through the project Fire/Life Safety Committee. In addition, the project safety team has initiated discussions with Segment 3 fire department jurisdictions to schedule project safety awareness training. Training sessions were conducted on September 8, 2022 for Training Officers of the Santa Clara County Fire Department. In addition, a full-scale emergency exercise that will include an electrification incident response component is scheduled for November 2022.

Tenant railroads operating on Caltrain Right-of-Way are being trained in early September. PCEP will train key management personnel and then provide the training material for their use in training remaining personnel.

Ninety-eight third party contractors have already been trained in the OCS Safety Awareness program with additional classes to be scheduled as needed.

### 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 forecasted dates for the IMS were based on the contractor project schedule updates submitted as of September 1, 2022. The Revenue Service Date (RSD) remains September 26, 2024, with schedule contingency.

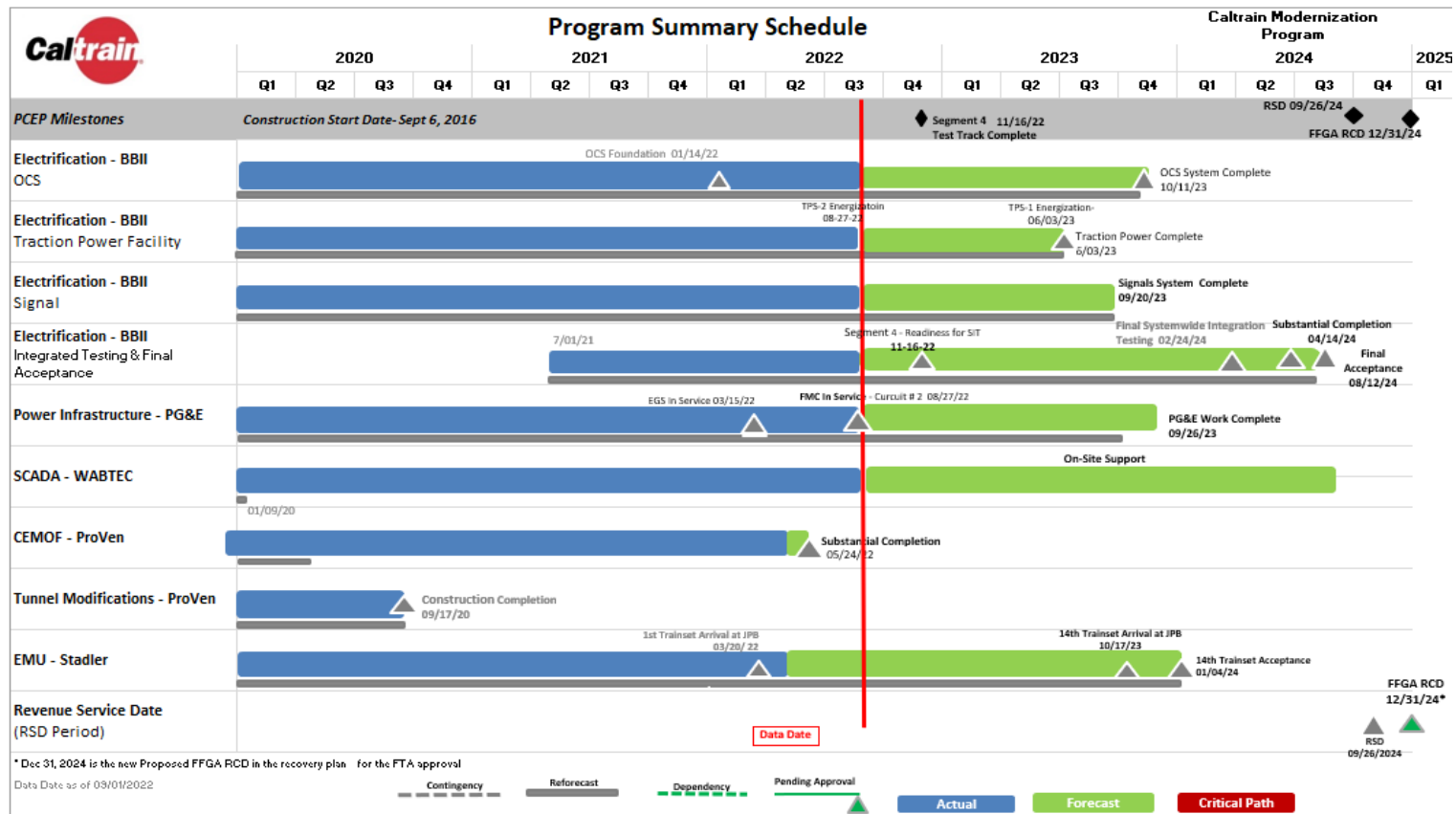


Figure 3-1. Master Program Summary Schedule

### **3.2 Program Project Status**

**PG&E** – PG&E completed bringing 115 kV power to the site and assisting in energizing Traction Power Substation #2 on August 27, 2022.

**SCADA** – Although Wabtec (formerly ARINC) has completed most of their contracted SCADA activities, they were just awarded a new change order for future points change and perform availability test upon electrified revenue service which is reflected in the Summary Schedule.

**BBII** – BBII is experiencing delays in completing both the OCS Construction and Signal Installation. These delays have resulted in their Scheduled Final Acceptance milestone slipping 12 days. They have committed to bring additional crews, OCS equipment which will be received in September 2022. Lack of RWIC is also a factor of the on-going schedule delay for cancelled planned work.

**CEMOF** – ProVen work on the CEMOF facility has been completed and is in Close-Out Phase.

**Tunnel Modifications** – ProVen work is completed, and project closed out in process of releasing final retention payment.

**EMU** – Stadler delivered two (2) more EMU trainsets to the JPM site on August 12, 2022. Caltrain has received a total of four (4) trainsets.

### **3.3 Critical Path**

The current critical path for PCEP starts with installation of the Portal, Head Span and Long reach Beams as well as the continuing installation of the OCS Poles and Balance Weight Assemblies. The path continues to run through the OCS system in Segment 1 and Segment 2 followed by Testing and Start-up and then Final Acceptance. The criticality of the path has slipped 4 days from the Reforecast Schedule in June 2022 and now show a negative 12-day total float. The Design-Build Contractor, Balfour Beatty, has committed to bringing in additional resources and equipment to reverse this schedule slippage.

The current near critical path is Milestone #1 (Segment 3 and Segment 4) and the remaining Signal and Crossing cutovers for Segment 2, Segment 3 and Segment 1, followed by testing and Start-up and then Final Acceptance.

**PCEP Lookahead Timeline**  
 August 2022 Update

<b>Segment / Task</b>	<b>Date</b>
<b>Systemwide</b>	
Traction Power Substation #2 Energization	8/27/2022A
Complete OCS Pole Installation	12-Sep-22
Complete Traction Power Facilities	09-Oct-22
Complete Ductbanks	14-Nov-22
Paralling Station Facilities Completion Milestone	26-Apr-23
Complete Milestone #1 (Segments 3 and 4)	22-May-23
Traction Power Substation #1 Energization	03-Jun-23
Complete OCS Energization - Segment 1, 2 & 3	03-Jun-23
Complete Signal Cutovers	20-Sep-23
Complete OCS (Contact & Messenger Wiring)	11-Oct-23
Start Systemwide Integrated Testing	15-Jan-24
Complete Systemwide Integrated Testing	24-Feb-24
BBII Substantial Completion	14-Apr-24
Revenue Service	26-Sep-24
FFGA RCD	31-Dec-24
<b>Segment 4</b>	
Start Integrated Testing Segment 4	07-Oct-22
Complete Integrated Testing Segment 4	17-Nov-22
Complete Segment 4	17-Nov-22
<b>Segment 3</b>	
Start Segment 3 Cutover	08-Dec-22
Complete Segment 3 Cutover	16-Apr-23
Start Integrated Testing Segment 3	16-Apr-23
Complete Integrated Testing Segment 3	22-May-23
<b>Segment 2</b>	
Start Segment 2 Cutover	8/1/2021A
Complete Segment 2 Cutover	08-Dec-22
Start Integrated Testing Segment 2	12-Oct-23
Complete Integrated Testing Segment 2	16-Dec-23
<b>Segment 1</b>	
Start Segment 1 Cutover	02-Aug-23
Complete Segment 1 Cutover	20-Sep-23
Start Integrated Testing Segment 1	17-Oct-23
Complete Integrated Testing Segment 1	15-Jan-24

Figure 3-2. PCEP Lookahead Timeline

**3.4 Schedule Issues**

Issues that may impact critical path or major milestones are identified in the table below as of August 2022.

**Table 3-1. Schedule Issues and Actions**

Issues	Actions
OCS installation delay due to low productivity and the project OCS work was on hold from March 10, 2022 to March 28, 2022 during the safety stand down.	<ul style="list-style-type: none"> <li>• Additional BBII OCS crew training for regulation and variance in the OCS design / installation due to re-design &amp; accommodations to resolve foundation DSC issues.</li> <li>• Hiring additional BBII OCS staff members to prevent schedule slippage and help in future installation planning.</li> </ul>
Lack of field railway worker in charge (RWIC) for increased work crews.	<ul style="list-style-type: none"> <li>• Design-builder brought in more watchmen for off-track work.</li> <li>• TASI to expedite RWIC hiring and training.</li> <li>• Explore third party field resource procurement path.</li> <li>• Assess operational impact for expanding work limits with track and time.</li> </ul>
2SC application logic defects found will require new software release and regression test and may impact Segment 2 cutover completion.	<ul style="list-style-type: none"> <li>• Assign technical task force for defect fixes.</li> <li>• Review with Rail Operations and FRA for approval.</li> <li>• Roll out new application logic and perform regression test for the crossings that were cutover previously.</li> <li>• Implement new allocation logic to the remaining crossings.</li> </ul>

**3.5 Contract Milestones**

**Table 3-2. Electrification Design-Build Contract Milestones**

Milestone	Reforecast Dates	Current Forecast	Milestone Variance
Completion of Milestone #1- Segments 3 and 4	April 30, 2023	May 22, 2023	-22
Substantial Completion	April 1, 2024	April 14, 2024	-13
Final Acceptance	July 30, 2024	August 12, 2024	-13

The permanent power was energized by PG&E on August 27, 2022, and Traction Power Substation #2 was energized. OCS field integrated testing with power will commence in mid to late October 2022. Segment 4 will be certified for temporary use for EMU burn-in by December 2022. BBII is preparing mitigation plans for schedule milestone variance recovery.

**Peninsula Corridor Electrification Project**  
**Monthly Progress Report – August 2022**

**4.0 COST AND BUDGET**

**4.1 Introduction**

This section presents current 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, 2022.

**4.2 Program Budget and Cost**

**Table 4-1. Budget Summary by Project**

Description of Work	Current Budget (A) <sup>1</sup>	Cost This Month (B) <sup>2</sup>	Cost To Date (C) <sup>3</sup>	Estimate To Complete (D)	Estimate At Completion (E) = (C) + (D)	Variance at Completion (F) = (A) – (E)
Electrification	\$1,749,139,438	\$18,119,184	\$1,409,638,912	\$339,500,526	\$1,749,139,438	\$0
EMU	\$693,551,258	\$11,627,137	\$476,451,219	\$217,100,040	\$693,551,258	\$0
<b>PCEP TOTAL</b>	<b>\$2,442,690,697</b>	<b>\$29,746,321</b>	<b>\$1,886,090,130</b>	<b>\$556,600,566</b>	<b>\$2,442,690,697</b>	<b>\$0</b>

<sup>1</sup> Column A "Current Budget" includes executed change orders and awarded contracts.

<sup>2</sup> Column B "Cost This Month" represents the cost of work performed this month.

<sup>3</sup> 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 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	\$16,630,743	\$834,064,434	\$263,085,447	\$1,097,149,881
EMU Procurement	\$556,072,601	\$556,204,966	\$9,574,507	\$394,991,868	\$161,213,098	\$556,204,966
Minor Construction Contracts (Tunnel, CEMOF, SCADA, Non-BBI OCS)	\$67,055,072	\$68,091,194	-\$20,912	\$64,410,692	\$3,680,502	\$68,091,194
Real Estate Acquisition & Support	\$34,914,177	\$34,914,177	\$13,245	\$23,794,189	\$11,119,988	\$34,914,177
PG&E, Utilities	\$132,088,995	\$132,088,995	\$995,960	\$200,316,271	-\$68,227,277	\$132,088,995
Management Oversight & Support	\$312,699,697	\$312,699,697	\$2,278,514	\$246,374,900	\$66,324,796	\$312,699,697
TASI Support	\$114,488,767	\$114,488,767	\$1,468,675	\$84,277,472	\$30,211,295	\$114,488,767
Finance Charges	\$9,898,638	\$9,898,638	\$113,382	\$8,975,136	\$923,502	\$9,898,638
Insurance	\$6,581,851	\$6,581,851	\$315,598	\$4,897,449	\$1,684,402	\$6,581,851
Other Required Projects & Services	\$9,084,176	\$9,084,176	\$50,548	\$2,899,228	\$6,184,948	\$9,084,176
Environmental Mitigation	\$14,438,866	\$14,438,866	\$1,696	\$1,207,099	\$13,231,767	\$14,438,866
Caltrain Capital Overhead (ICAP)	\$48,217,887	\$48,217,887	-\$1,675,633	\$19,881,392	\$28,336,495	\$48,217,887
Contingency	\$40,000,089	\$38,831,602	\$0	\$0	\$38,831,602	\$38,831,602
<b>Total</b>	<b>\$2,442,690,697</b>	<b>\$2,442,690,697</b>	<b>\$29,746,321</b>	<b>\$1,886,090,130</b>	<b>\$556,600,566</b>	<b>\$2,442,690,697</b>

### 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 that are above \$250,000 require Change Management Board (CMB) approval.

**Table 4-3. Shared Risk Pool Status as of August 2022**

Risk ID	Risk Description	Risk Amount	Current Month	Executed to Date	Remaining Balance
1	Permanent Power Availability	\$268,572	\$0	\$114,495	\$154,077
2	Different Site Condition for OCS Foundation	\$3,500,000	\$0	\$1,012,272	\$2,487,728
3	Different Site Condition for Duct bank	\$2,800,000	\$77,691	\$98,657	\$2,701,343
4	Condition of existing Fiber backbone infrastructure	\$3,150,000	\$90,386	\$132,561	\$3,017,439
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	\$29,125	\$29,125	\$509,447
8	EMI Nonconformance by EMU Vendor	\$750,000	\$0	\$144,500	\$605,500
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	\$0	\$1,400,000
17	Third party Approval	\$150,000	\$0	\$0	\$150,000
18	Impact from Caltrain other capital or third-party projects	\$2,166,683	\$0	\$159,342	\$2,007,340
19	Track access delay for BBII Construction	\$1,800,000	\$14,605	\$14,605	\$1,785,395
20	Additional light Maintenance and Protection Needs	\$280,000	\$0	\$0	\$280,000
21	Crossing Protection	\$220,000	\$41,916	\$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	\$71,012	\$1,628,988
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	\$900,000	\$11,100,000
NA	Unidentified	\$54,179	\$0	\$0	\$54,179
	<b>BBII Risk Pool Total</b>	<b>\$50,000,000</b>	<b>\$253,723</b>	<b>\$2,807,827</b>	<b>\$47,192,173</b>

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 unknown costs. 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	Description	Current Budget Contingency	EAC Contingency
<b>Project Contingency</b>		Previously Reported Balance	<b>\$39,867,724</b>
ARINC-061-CCO-005	Traction Power Facility SCADA Database Changes	(\$1,036,122)	\$0
	<b>PROJECT CONTINGENCY REMAINING BALANCE</b>	<b>\$38,831,602</b>	<b>\$38,831,602</b>

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.

**Table 4-5. BBII Incentives**

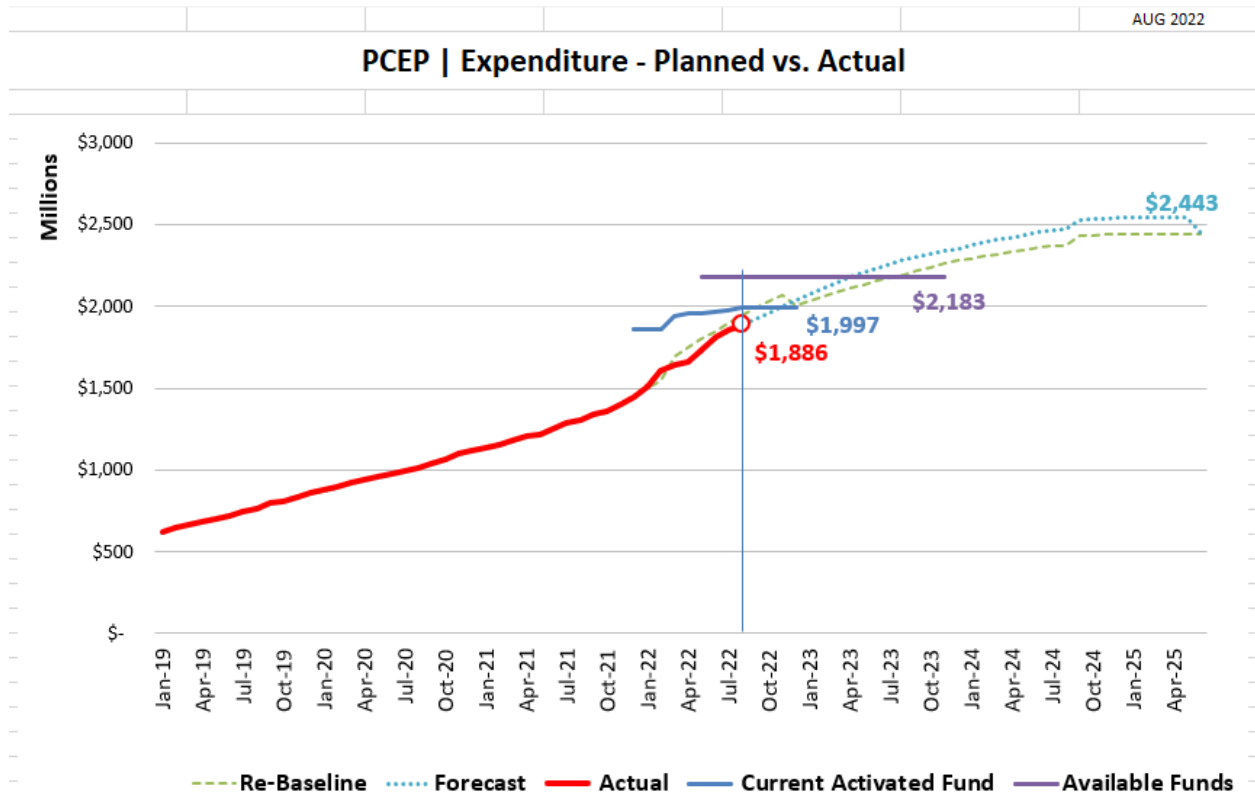
Incentives	Budgeted	Awarded	Balance
<b>Contract Incentive:</b>			
Quality	\$1,250,000	\$1,000,000	\$250,000
Safety	\$2,500,000	\$875,000	\$1,625,000
Community Outreach	\$2,500,000	\$1,750,000	\$750,000
DBE	\$900,000	\$0	\$900,000
<b>Total Contract Incentive</b>	<b>\$7,150,000</b>	<b>\$3,625,000</b>	<b>\$3,525,000</b>
<b>Milestone Incentive:</b>			
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
<b>Total Milestone Incentive</b>	<b>\$15,000,000</b>		<b>\$15,000,000</b>

**4.5 Program Cash Flow and Funding**

The remaining program expenditures are cash flowed in Figure 4-1 to illustrate by April 2023 additional funding will be needed to complete the program.



Figure 4.1 Expenditure – Funding Cash Flow



4.6 Issues

Table 4-6. Cost and Funding Issues Identified, and Actions Taken for August 2022

Issues	Actions
Additional funding setup for \$410M Funding Gap.	<ul style="list-style-type: none"> <li>Actively pursuing additional State and Federal funding sources.</li> <li>Dedicated task force has been established at the executive level.</li> <li>Prepare earmarks grant scope and application for April submission.</li> </ul>

## **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 August 2022:

- TAD Nov 2021 for \$14,605 was executed on August 17, 2022.
- Protection of OTE at Gated Crossings (February 2022 through June 2022) for \$43,953 was executed on August 23, 2022.
- Signal Layout and Bonding for Pine Cone for \$27,920 was executed on August 23, 2022.
- Fiber Strike at CT 23.92 on February 23, 2022 for \$79,025 was executed on August 23, 2022.
- Systemwide Fiber Splice Enclosure Check for \$54,970 was executed on August 29, 2022.
- Investigate and Repair Fiber Optics Cable at MP 25.21 for \$35,831 was executed on August 29, 2022.

#### **5.2.2 Approved Change Orders**

- Stadler Change Order 039 for “Multiple No Cost / No Schedule Impacts Group 9” to modify Inductive Emissions Limits per RFC-079 and Payment Schedule per RFC-079.

#### **5.2.3 Upcoming Change Orders/Shared Risk Items**

- Thirteen (13) shared risk items, totaling \$304,923 are being routed for approval signatures.
- Revision to Special Provision 01700 Contract Closeout.
- Revision to permissible overhead and profit markup for Subcontractors performing out-of-scope work.
- Revision to Intermediate Milestone No. 1.

5.3 Issues

**Table 5-1. Change Management Issues Identified and Actions Taken for August 2022**

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.	<ul style="list-style-type: none"><li>• Define EMU testing and burn in work schedule.</li><li>• BBII will provide isolation and protection once Segment 4 is powered up.</li><li>• BBII will provide maintenance lite during EMU testing and burn in.</li><li>• Prepare Request for Proposal for OCS/TPS Maintenance Service for public procurement.</li><li>• Develop evaluation criteria for Maintenance Service proposals.</li><li>• Recommend for award and obtain JPB board approval.</li></ul>

|