

CALTRAIN ELECTRIFICATION UPDATE



PROJECT OVERVIEW





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- Caltrain Electrification
- San Francisco to San Jose (Tamien Station)
- 51 miles
- Updated Project Cost: \$2.31B
- Update Revenue Service: Sept. 2024





PROJECT ELEMENTS





Electrification

- Overhead Contact System (OCS)
- Traction Power Facilities

Electric Trains

• 19 7-car train sets (133 cars)

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





PROJECT BENEFITS



Improved Train Performance, Increased Service and Greater Capacity



Improved Regional Air Quality and Reduced Greenhouse Gas Emissions



Positive Economic Benefits for the Region

Reduced Engine Noise Emanating from Trains





- Electrification sets foundation for future growth of system
- Meet projected regional growth in jobs and housing in the Bay Area
- Triple ridership, increase peak and off-peak service
- Carry equivalent of 5.5 lanes of US 101 highway traffic



Cal Mod New Project Chief

- Civil infrastructure coming to end
- Chief Officer John Funghi leaving program
- Program focus
 - Signal and systems
 - Safely and efficiently convert diesel system to electrical
 - Project cost and schedule
- Welcome Pranaya Shrestha Interim Chief Officer
 - 30 years of rail experience
 - HNTB consultant on property 100% dedicated to project
 - Experience with 25kV AC commuter rail and DC light rail systems, and designbuild project delivery
 - Relationships with FTA and major contractors on project



CONSTRUCTION UPDATE





CONSTRUCTION SEGMENTS







- Overhead Contact System (OCS)
 - Foundations 89% complete (87% last month)
 - Poles 66% complete (65% last month)
 - Segment 3 Wire 100% complete
- Traction Power Facilities
 - Transformer installed at 9 of 10 facilities
 - Traction Power Substations 1 & 2 96% complete
 - Switching Station 1 93% complete (92% last month)
- Electric Trains (133 cars total)
 - 86 shipped (82 last month)
 - 73 in Salt Lake City manufacturing facility
 - Trainset 1 in Pueblo for on-track testing





OCS FOUNDATIONS

Segment	Foundations Required	Foundations Remaining	Installation Percent Complete	Completed Last Month	Anticipated Completion Date
Segment 1	567	371	35%	35	12/30/2021
Segment 2	1,179	Complete	100%	26	Complete
Segment 3	901	Complete	100%	N/A	Complete
Segment 4	370	Complete	100%	N/A	Complete
CEMOF	85	Complete	100%	N/A	Complete

Data as of August 31, 2021





OCS POLES

Segment	Required	Remaining	Installation Percent Complete	Completed Last Month	Anticipated Completion Date
Segment 1	442	442	0%	0	05/18/22
Segment 2	971	418	57%	35	11/31/21
Segment 3	755	Complete	100%	Complete	Complete
Segment 4	304	12	96%	3	10/15/2021
CEMOF	83	1	99%	1	10/08/2021





OCS WIRE

Segment	Installation Percent Complete	Completed Last Month (in feet)	Anticipated Installation Completion	Testing Percent Complete	Anticipated Testing Completion
Segment 1	0 %	0	06/23/22	0 %	07/20/22
Segment 2	20 %	0	12/15/2021	8 %	01/20/22
Segment 3	100 %	0	05/03/2021	100 %	05/15/2021
Segment 4	54 %	18,745	11/15/21	0.0 %	11/21/21

Data as of August 31, 2021





SIGNAL SYSTEM

Segment	95% Design Percent Complete	Anticipated 95% Design Complete	Installation Percent Complete	Anticipated Installation Complete	Testing Percent Complete	Anticipated Testing Complete
Segment 1	64%	03/31/2023	21%	08/31/2023	0%	09/30/2023
Segment 2	98%	07/17/2022	23%	08/01/2022	5%	12/31/2022
Segment 3	35%	12/11/2022	21%	02/28/2023	0%	03/31/2023
Segment 4	100%	Complete	92%	10/15/2021	95%	10/24/2021





TRACTION POWER FACILITIES

Facility	Sitework	Substation Building	Low / High Voltage Equipment	Transformer	Gantry	Total Completion	Anticipated Completion
TPS-1 (SSF)	95%	89%	97%	100%	97%	96%	1/30/2022
TPS-2 (San Jose)	93%	99%	97%	100%	98%	97%	10/15/2021
SWS-1 (RWC)	93%	89%	88%	100%	89%	92%	12/31/2021
PS-1 (SF)	63%	83%	90%	100%	91%	73%	1/19/2022
PS-2 (SF/Brisbane)	75%	76%	82%	100%	77%	85%	12/22/2021
PS-3 (Burlingame)	19%	63%	0%	20%	15%	23%	4/18/2022
PS-4 (San Mateo)	88%	81%	93%	100%	82%	89%	11/21/2021
PS-5 (Palo Alto)	64%	83%	65%	100%	94%	81%	1/7/2022
PS-6 (Sunnyvale)	90%	83%	91%	100%	92%	91%	10/15/2021
PS-7 (San Jose)	96%	89%	95%	100%	97%	95%	10/31/2021

Wayside Power Cabinets

Required	Installed
27	20



Data as of August 31, 2021



- Production
 - COVID-19-related global safety measures have slowed production
 - Salt Lake City assembly delayed
 - Switzerland production paused for three months due to lack of space at SLC
 - Trainsets 3 to 19 various states of production
- Testing •
 - Dynamic type testing on schedule in Pueblo on trainset 1
 - HVAC type testing trainset 2 -
 - Routine testing trainsets 3, 4 and 5 being performed in SLC -
- Schedule
 - First trainset to Caltrain 1st Quarter 2022
 - Acceptance of 14 of 19 trainsets 3rd Quarter 2023



PROJECT UPDATE





SCHEDULE (KEY MILESTONES)

Revenue Service September 2024







PROJECT COST

Total Project Cost	\$2.31B
	(\$1.98B Previous Project Cost)
Committed	\$1.85B
Carryover Contingency	\$129.8M
(Previous Budget)	
Additional Known (Allocated)*	\$161.0M
Additional Reserve*	\$172.0M

*Note: Total \$333M additional cost recommended by FTA





- 1. BBII dispute on 2SC work
- 2. BBII requests for change orders / claims
- 3. Delays in parts supply chain affecting vehicle completion schedule
- 4. Continue to mitigate underground site conditions and assist BBII with redesign efforts





- Seeking funding for \$333M additional project cost
- State funding opportunities to relieve local commitment
 - State transportation funding package did not advance this year (next opportunity 2022)
 - Developing fall advocacy strategy
 - Continuing to engage sister agencies, local business groups, key city partners, state/federal delegation
- Federal funding opportunities
 - \$52M American Rescue Plan received
 - \$2B in discretionary federal funding recently announced
 - Infrastructure Investment in Jobs Act
 - Surface transportation reauthorization and appropriations bills



PROJECT PRIORITIES





- Resolve BBII contract commercial issues
- Keep construction moving forward, including 2sc work
- Staff request budget amendment to JPB
- Submit FTA Project Recovery Plan / FFGA Update
- Funding advocacy
 - Continue to seek state / federal funding opportunities



QUESTIONS

