PENINSULA CORRIDOR ELECTRIFICATION PROJECT (PCEP)

Q1 Quarterly Update #16 Rev1
July 1 – September 30, 2018

JPB Board Meeting
November 1, 2018
Agenda Item # 7(a)
Progression of Design

ELECTRIFICATION

• Overhead Catenary System (OCS):
  – Continued final design and Design Change Notices (DCNs) for all segments
  – Continued technical coordination with Union Pacific Railroad (UPRR) for Segment 4 OCS design changes

• Signal System:
  – Continued technical coordination with UPRR for systemwide signal system design
  – Continued developing Consistent Warning Time (CWT) solution, including an updated design approach and typical designs for 3 locations
  – Continued review of Line of Sight studies

Progression of Design

ELECTRIFICATION

• Traction Power System:
  – Continued design of Traction Power Facilities plans in all segments
  – Completed design of Traction Power Substation (TPS) 1 and Paralleling Station (PS) 4 in Segment 2
  – Issued change for location of PS-3 based on coordination with the City of Burlingame
  – Continued coordination with PG&E on design of interconnection and VTA on design of TPS-2 interconnection

• Communication System:
  – Continued work on systemwide communication design

• Systems Integration:
  – Continued design of Systems Integration Testing Plan
## ELECTRIFICATION

### Issued for Construction Designs Completed

<table>
<thead>
<tr>
<th>Design Discipline</th>
<th>OCS Required</th>
<th>OCS Completed</th>
<th>Signal Required</th>
<th>Signal Completed</th>
<th>Traction Power Required</th>
<th>Traction Power Completed</th>
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<tbody>
<tr>
<td>Segment 1</td>
<td>6</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>0</td>
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<tr>
<td>Segment 2</td>
<td>11</td>
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<td>66</td>
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<td>10</td>
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<td>2</td>
<td>0</td>
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<td>Segment 4</td>
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<td>5</td>
<td>24</td>
<td>0</td>
<td>4</td>
<td>3</td>
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<tr>
<td>Systemwide</td>
<td>9</td>
<td>7</td>
<td>14</td>
<td>0</td>
<td>7</td>
<td>5</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>39</strong></td>
<td><strong>23</strong></td>
<td><strong>117</strong></td>
<td><strong>0</strong></td>
<td><strong>19</strong></td>
<td><strong>10</strong></td>
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</table>

Note: Data as of September 30, 2018

### Construction Progress

<table>
<thead>
<tr>
<th>Segment</th>
<th>Work Area</th>
<th>Foundations</th>
<th>Poles</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Required</td>
<td>Completed</td>
<td>Required</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>256</td>
<td>173</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>320</td>
<td>230</td>
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<tr>
<td></td>
<td>3</td>
<td>190</td>
<td>43</td>
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<tr>
<td></td>
<td>2</td>
<td>260</td>
<td>0</td>
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<tr>
<td></td>
<td>1</td>
<td>206</td>
<td>0</td>
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<td><strong>Total</strong></td>
<td><strong>1,232</strong></td>
<td><strong>446</strong></td>
<td><strong>941</strong></td>
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</tbody>
</table>

Note: Data as of October 18, 2018

Note: Foundations Required do not match Poles Required as guy foundations are needed in some locations for extra support.
TPS-2 Transformer Installation

Construction Photos: Runs of Static Wire in S2WA5
Construction Photos: Runs of Static Wire in S2WA5

Other Electrification Contracts

• Supervisory Control and Data Acquisition (SCADA)
  – Performed power, heating, ventilation and air conditioning site review and developed a sufficiency study
  – Received equipment and established lab
  – Continued to implement features such as clearance and remote power terminal
• Centralized Equipment Maintenance and Operations Facility (CEMOF)
  – Design complete
  – IFB Release: July 26, 2018
  – Pre-Bid: August 8, 2018
  – Bids Due: November 9, 2018
  – NTP: March 1, 2019
Other Electrification Contracts (continued)

- Pacific Gas and Electric (PG&E)
  - Continued design of Permanent Power at FMC and East Grand
  - Continued construction for FMC Temp Power—Cutover for Temp Power scheduled for November
  - Continued Material procurement for Permanent Power

Other Electrification Contracts (continued)

- Tunnel Modifications Contract awarded to Proven Management (PMI)
  - Limited Notice to Proceed issued August 1
  - Notice to Proceed issued October 6
- Work in tunnels to be performed during weekend shutdowns between Bayshore Station and 4th and King Station from October 6, 2018 to late spring 2019
- Two consecutive weekend shutdowns have occurred as of 10/19/18
- Work performed to date includes:
  - Grouting work began (Tunnel 1 completed 10/14/18)
  - Hand notching began in Tunnel 2
  - Tunnel and OCS location survey
  - OCS Termination structure foundation potholing
- No impacts to service on Monday mornings
**DISADVANTAGED BUSINESS ENTERPRISE (DBE)**

**Goal of 5.2% ($36,223,749) of the DB contract**

- As of September 30, 2018
  - $12,511,296 has been paid to DBE subcontractors

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**ELECTRIC MULTIPLE UNITS (EMU)**

**Stadler**

- System, Car and Trainset level designs continue to be finalized
- System level design conformance testing commenced
- First 2 carshells have arrived in Stadler’s new Salt Lake City facility
- Shells undergoing preparation for interior assembly
- Remaining cars for Trainset 1 in transit to Salt Lake City
- Stadler new Salt Lake City facility construction on schedule and progressively completed to support car assembly advancement
- Carshells for Trainsets 2 and 3 in various stages of fabrication in Altenrhein
- Bogie (truck frame) fabrication underway in Winterthur
- Onboard Positive Train Control equipment supplier substitution advances with no known car delivery delays or additional cost
Car Progressive Assembly Area (under construction)

First 2 Carshells Arriving at Stadler SLC Facility

First Cab Carshell Offloaded at SLC ‘Displacement Hall’

**Note:** Schedule Subject to Change
• Review Cost and Schedule Impacts of Risk Register
• 286 risks; 93 active; 193 retired
• Top Risk: BBII may be unable to develop grade crossing modifications that meet regulatory requirements prior to scheduled testing and commissioning of the consistent warning system
• Mitigation:
  – Develop solution per contract terms and budget
  – Advance speed check solution
  – Coordinate solution with Operations
  – Meet with FRA, CPUC and UPRR
  – Revise budget to achieve desired solution

BUDGET & EXPENDITURES
<table>
<thead>
<tr>
<th>Project</th>
<th>Budget</th>
<th>Current Budget</th>
<th>FY19 Q1 Costs</th>
<th>Costs to Date</th>
<th>Estimate at Completion</th>
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<tbody>
<tr>
<td>Electrification</td>
<td>$696.61</td>
<td>$711.99</td>
<td>$26.72</td>
<td>$251.31</td>
<td>$711.99</td>
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<td>SCADA</td>
<td>$0.00</td>
<td>$3.45</td>
<td>$0.52</td>
<td>$1.90</td>
<td>$3.45</td>
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<td>EMU</td>
<td>$550.90</td>
<td>$550.56</td>
<td>$4.23</td>
<td>$92.40</td>
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<td>PG&amp;E</td>
<td>$57.22</td>
<td>$88.49</td>
<td>$2.22</td>
<td>$24.55</td>
<td>$88.49</td>
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<td>Tunnel Notching</td>
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<td>$25.82</td>
<td>$2.90</td>
<td>$2.90</td>
<td>$25.82</td>
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<td>Separate Contract &amp; Support Costs</td>
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<td>$15.30</td>
<td>$168.28</td>
<td>$346.45</td>
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<td>$0.00</td>
<td>$0.00</td>
<td>$16.60</td>
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PCEP Total                  | $1,980.25 | $1,980.25 | $51.89   | $541.34       | $1,980.25              |

Note 1: Contingency is not for out of scope changes.

Budget / Expenditures as of September 31, 2018
## CONTINGENCY DRAWDOWN

<table>
<thead>
<tr>
<th>Contracts</th>
<th>Amount</th>
<th>Contingency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning Contingency</td>
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<td>$315,533,611</td>
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<tr>
<td>Drawdown</td>
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<tr>
<td>Executed Change Orders</td>
<td>$12,546,404</td>
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<tr>
<td>SCADA Contract</td>
<td>$3,446,917</td>
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<tr>
<td>PG&amp;E Supplemental #4</td>
<td>$31,263,082</td>
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<td>Tunnel Modifications</td>
<td>$14,786,286</td>
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<td><strong>Total</strong></td>
<td><strong>$62,042,689</strong></td>
<td><strong>$253,490,922</strong></td>
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Note 1: Contingency is not for out of scope changes.

As of September 31, 2018

## ANTICIPATED CONTINGENCY DRAWDOWN

<table>
<thead>
<tr>
<th>Contracts</th>
<th>Amount</th>
<th>Contingency</th>
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<tbody>
<tr>
<td>Remaining Contingency</td>
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<td>$253,490,922</td>
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<tr>
<td>Pending Contingency Drawdown</td>
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<tr>
<td>Tunnel OCS</td>
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<tr>
<td><strong>Anticipated Remaining Contingency</strong></td>
<td><strong>$236,890,922</strong></td>
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Note 1: Contingency is not for out of scope changes.

As of September 31, 2018
Note 1: Contingency is not for out of scope changes.
OUTREACH

Meetings, Mailers & Website

MEETINGS
14 PUBLIC MEETINGS

MAILERS
64,913 DIRECT MAILERS

CALMOD.ORG WEBSITE
27.88% USERS (8,480 VS. 6,631)
84.8% NEW VISITORS
15.2% RETURNING VISITORS

CalMod E-Newsletter

JULY
1,341 SUBSCRIBERS
43% OPEN
93 TOTAL UNIQUE CLICKS

AUGUST
1,387 SUBSCRIBERS
45% OPEN
102 TOTAL UNIQUE CLICKS

SEPTEMBER
1,523 SUBSCRIBERS
38% OPEN
86 TOTAL UNIQUE CLICKS

CONTACT

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