
Metrolink Positive Train Control Program Status Update

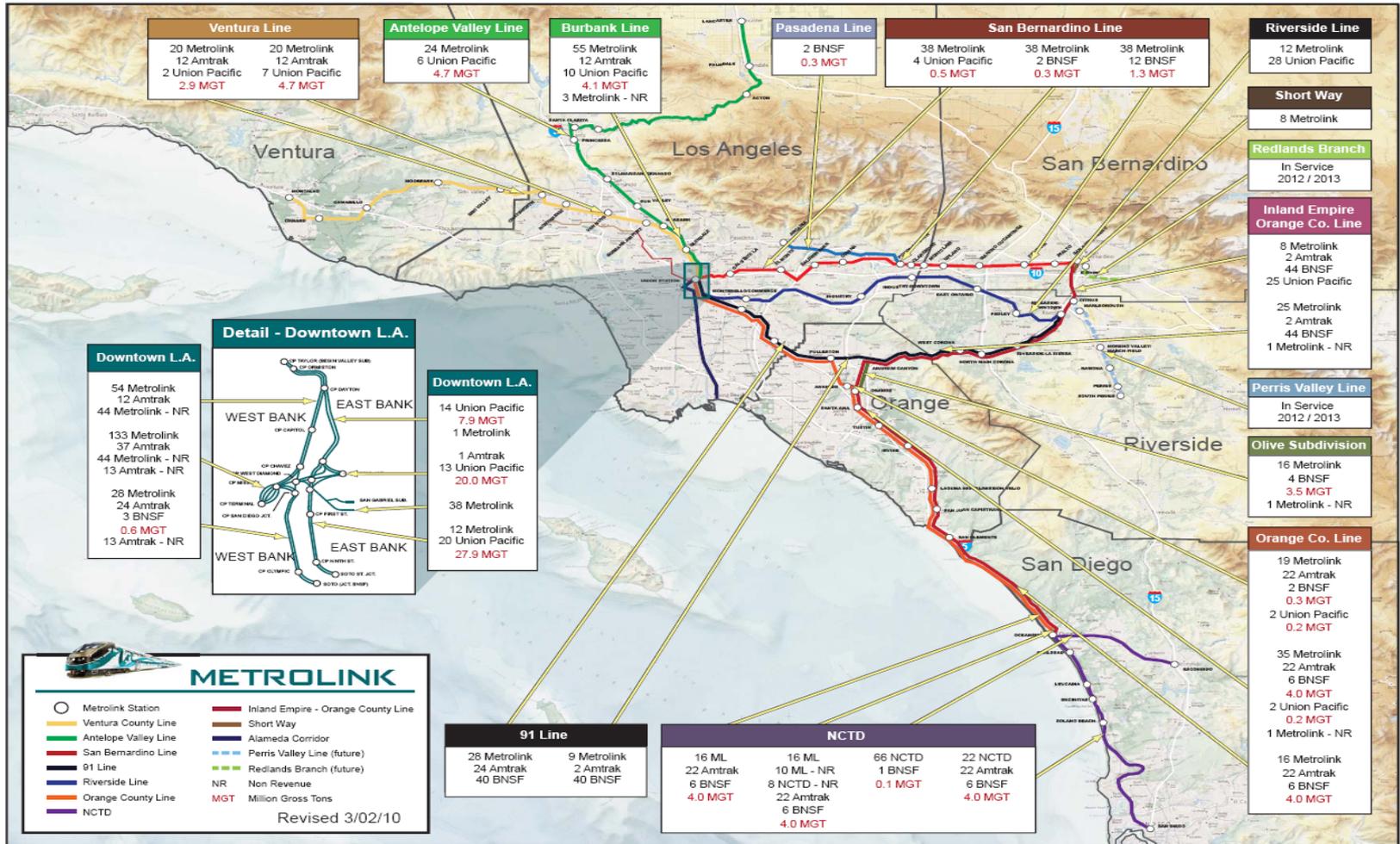
April 7, 2010

California Transportation Commission

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2009 WEEKDAY TRAIN DENSITY AND MILLION GROSS TONS



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PTC System - 4 Key Components

1. On Board Segment (Locomotive-Centric System!)

- Computers on Locomotive and Cab Cars
- Computer Track Database/Map, Braking Algorithm
- Global Positioning System plus Wheel Tachometer
- Display Screen for Locomotive Engineer
- On-Board Communication Servers & Antennas
- *PTC Brains are on the Train! (Locomotive-Centric)*

2. Communication Segment

- Radio Spectrum + Network of Wireless Towers
- Line Haul (Back Haul) Communication Network
 - ✓ Fiber, Digital Microwave, Leased Telco (MPLS)
- *Communication Network is the Backbone of PTC!*

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PTC System – 4 Key Components (cont.)

3. Wayside Segment

- Overlay on the Existing Wayside Signal System
- Train “Pings” Approaching Signals up to 8 miles
- Signal Indications Communicated to Train
- Train Computer Enforces Stop Signal

4. Office Segment

- Co-located with Centralized Dispatch System
- Back Office Server (BOS) Routes PTC Information
- Dispatch System Feeds Information to BOS
- On-Board Systems Continuously Linked to BOS



Upcoming Deadlines

- PTC Implementation Plan (PTCIP)
 - Must be filed by April 16, 2010
- PTC Development Plan (PTCDP) or Notice of Product Intent (NPI)
 - Must be filed by April 16, 2010
- PTC Safety Plan (PTCSP)
 - Must be filed, then approved by FRA in order to operate in PTC
- Pre-Proposal Conference April 17, 2010



PTC Program Execution Approach

1. Establish PTC Team
2. Catch Up with Freight RR's PTC knowledge
3. Rely Heavily on BNSF & UPRR Experience
4. Focus on Delivering "Core" PTC Functions
5. Determine Optimum Roles & Responsibilities for Owner and Vendor(s)
6. Use "Semi-Turnkey" Vendor/Integrator - RFP issued March 15, 2010
7. Deliver PTC at Same Pace as UPRR & BNSF



SCRRA PTC Estimate and Funding Strategy **\$201.6 million**

<u>Secured Funding</u>	<u>Amount</u>
SCRRA Funds (Local, Federal Formula, STIP)	\$4.2 mil
Federal ARRA Formula	\$17.8 mil
SCRRA Prop 1B PTMISEA and TSGP	\$7.3 mil
<u>Subtotal</u>	\$29.3 million
<u>Programmed Funding</u>	
MTA Prop 1B SLPP/Local, SBAG PTMISEA, OCTA Local	\$47.5 mil
OCTA Prop 116	\$32.7 mil
Federal Appropriation	\$5 mil
<u>Subtotal</u>	\$80.7 million
<u>Total Funding Secured/Programmed</u>	<u>\$110.0 million</u>

Shortfall **\$91.6 million**

<u>Additional Funding Requests for Shortfall</u>	
SCRRA FY 09-10 Prop 1B PTMISEA and TSGP	\$7.7 mil
Prop 1A Intercity	\$47.5 mil
Prop 1A SCRRA	\$35.0 mil
FY2011 Federal Appropriations	\$10.0 mil
FRA Technology Grants	\$25.0 mil



Cash Flow Needs

Date	Total Project Expenditures
By December 2009	\$8.2 million
By June 2010	\$26.1 million
By June 2011	\$91.5 million
By June 2012	\$163.7 million
By June 2013	\$201.6 million



State Funding Action Needed

- Prioritize transportation bond funding for PTC through Prop. 116, 1B and 1A
- Up to \$65 million bond funding needed in FY2011
- Up to \$72 million bond funding needed in FY2012

