Charger Locomotive Deployment

“The California Experience”
Fleet Performance - Oakland
Oakland – 8 Charger locomotives

- Close collaboration with Amtrak on-site team.
- Consistent performance since record keeping started.
Fleet Performance - LA

Los Angeles – 14 Charger locomotives

- 13 of 14 locomotives delivered
- 13 locomotives in service
- Collaboration resolving ramp up challenges of new fleet and PTC
Team Effort

• Coordination between Caltrans, Siemens, Amtrak, JPAs, and JPEs (IDOT/WSDOT) through:
  – Bi-Weekly Project Management call (JPEs/Siemens)
  – Bi-Weekly Warranty call
  – Failure Review Board meetings
  – Weekly Charger Status Update (Amtrak, Caltrans, JPAs, and Siemens)
  – Weekly FMI call (Amtrak, Caltrans, JPAs, and Siemens)
Concerns with lack of Warranty spare parts to support Option locomotives

Siemens has been working to address concerns and trend is improving.
New Larger Snow Plow

Current Design

New Caltrans Design

Worked with Amtrak to ensure proper clearances can be maintained.
Renewable Diesel Project

- Caltrans and Capital Corridor partner to achieve reduced GHG through Renewable Diesel.
- Cummins and Siemens Supporting Testing of the RD Fuel in new Tier IV locomotive.
- Test Planning underway for Long term durability of engine running RD fuel.

Renewable Diesel Advantages

- 12% reduction in system out NOx emissions on EPA emissions test
- 50% (approximate) reduction of particulate matter (cause of black smoke).
- Initial tests at Cummins are positive, next phase is field long term testing.
- Preliminary Data provided by Cummins