

# INCENTIVIZING US INVESTMENT

International Zero Emission Bus Conference

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November 30, 2016

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# Current Environment for ZEBs in U.S.

- Fleets adopting ZEBs at a growing rate
- Incentive programs, but no regulatory drivers
- Transit fleets and government eye to rapid acceleration in the next 10 years
- More work needs to be done



# Policy Drivers in the U.S. and California

- Federal Clean Air Act
- Zero emission technologies strongly supported by US DOE and FTA
- International movement
  - Paris agreement
  - Race to Zero with China
- California air quality, GHG, and petroleum reduction goals

# California Clean Air Plans

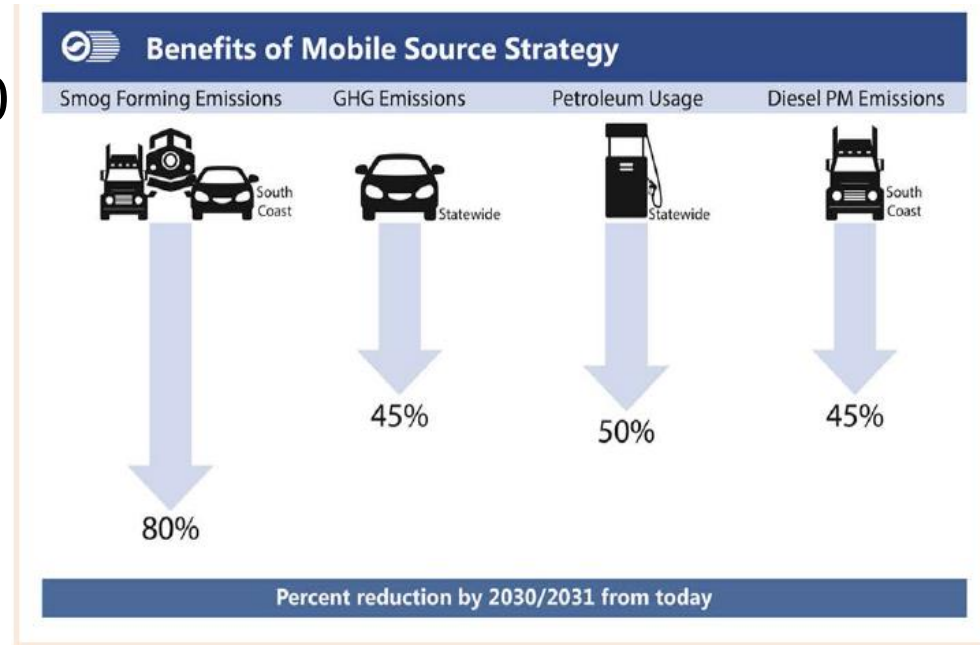
- Integrated climate / air quality plans – significant progress needed to reach goals
- Focus on cleaner technologies & fuels
- Regulatory and incentive-based measures
- Transformational to zero and near-zero



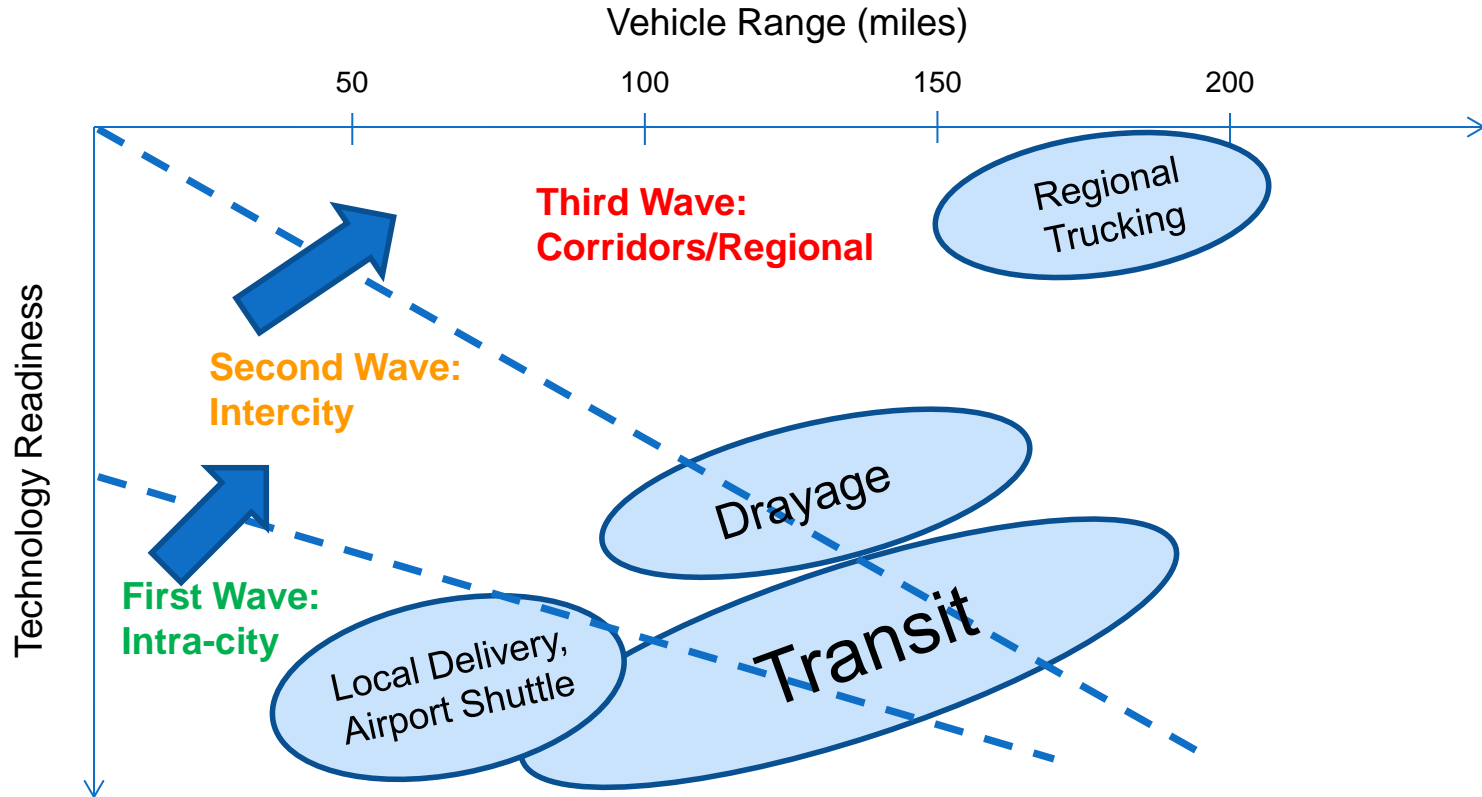
# Mobile Source Vision and Goals

Zero where we can, near-zero everywhere else

- SIP outlines measures for 45% GHG reduction by 2030
- Reduce Localized Health Risk\*
  - Smog forming emissions by 80%
  - Diesel PM emissions by 45%



# Advancing Heavy-Duty Zero Emissions



# Government Support

- Prioritizing technology transformation
- Research and development
- Demonstration projects for technology validation
- Send clear market signals
- Lower risk for private investment, commercialization, and cost reductions
- Outreach and education; Infrastructure coordination; workforce training



# Advanced Transit Control Measure

- Long-term goal – complete transition to zero-emission public transportation system with increase accessibility and services
- Partnering with transit agencies:
  - expand transit service/get people out of cars
  - improve mobility
  - promote advanced technology
- Regulatory, incentive options – scheduled for 2017





# Roadmap for HD Transportation Electrification

- Clear long-term planning
- Clear market signal
  - Regulation, incentives, standardization and other market drivers
- Begins with short haul, centrally-fueled fleets
- Active planning and organization for long term expansion
  - Close coordination with utilities, government, industry, fleets, riders ...

