



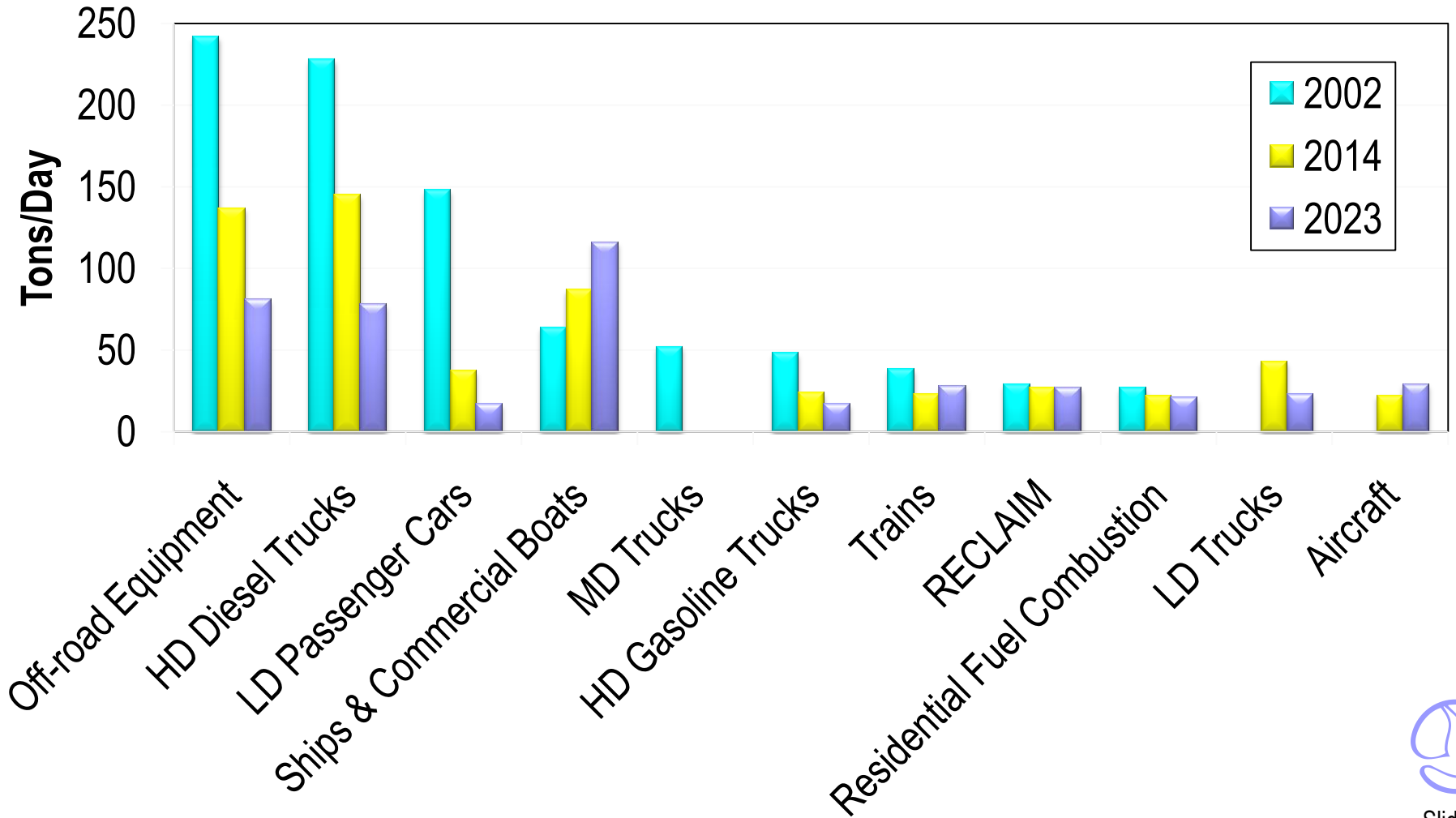
Technology Advancement Office Advisory Group Meeting

Session 2 Light-Duty Vehicles August 19, 2010

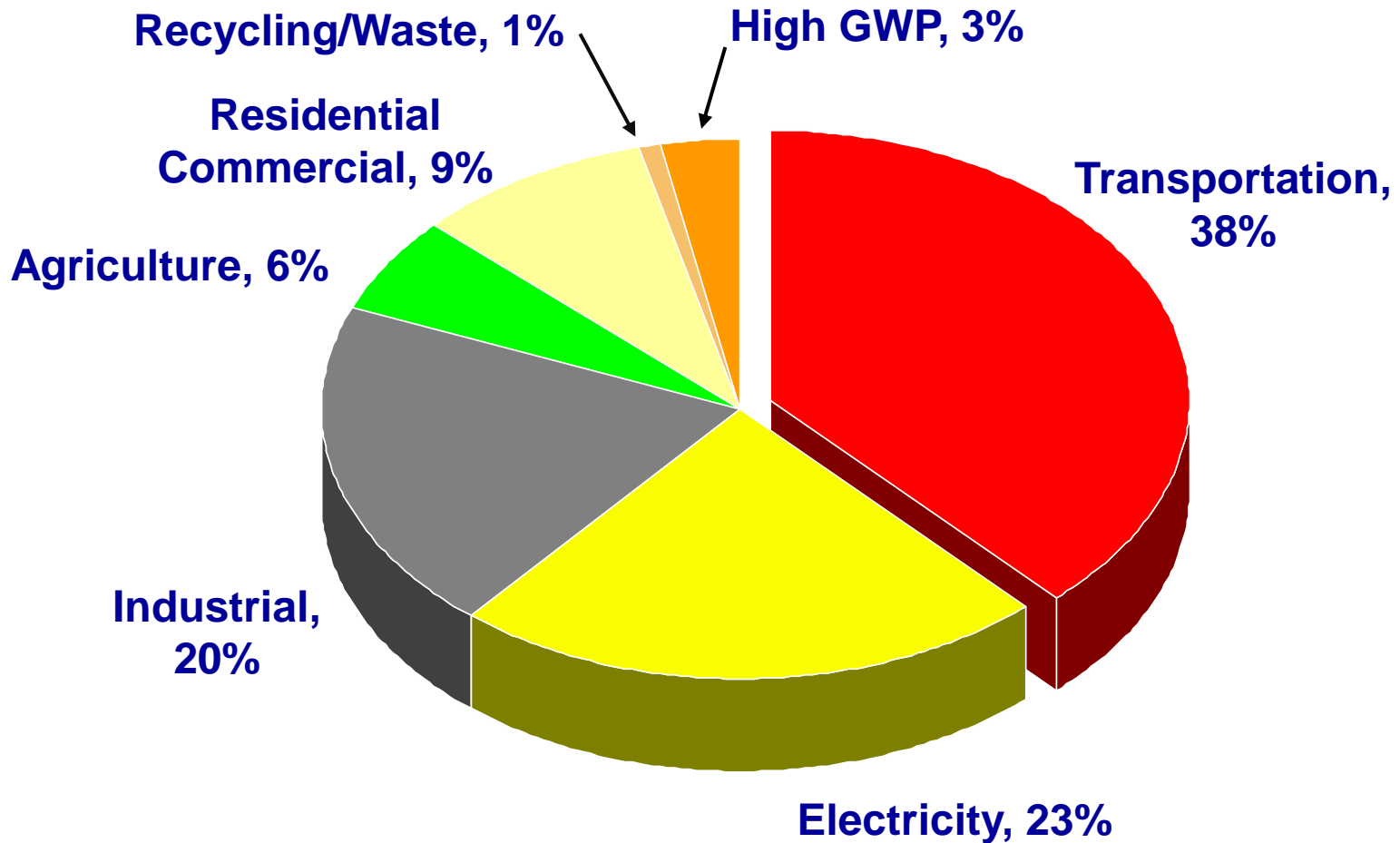


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Technology Demonstration Manager
Technology Advancement Office

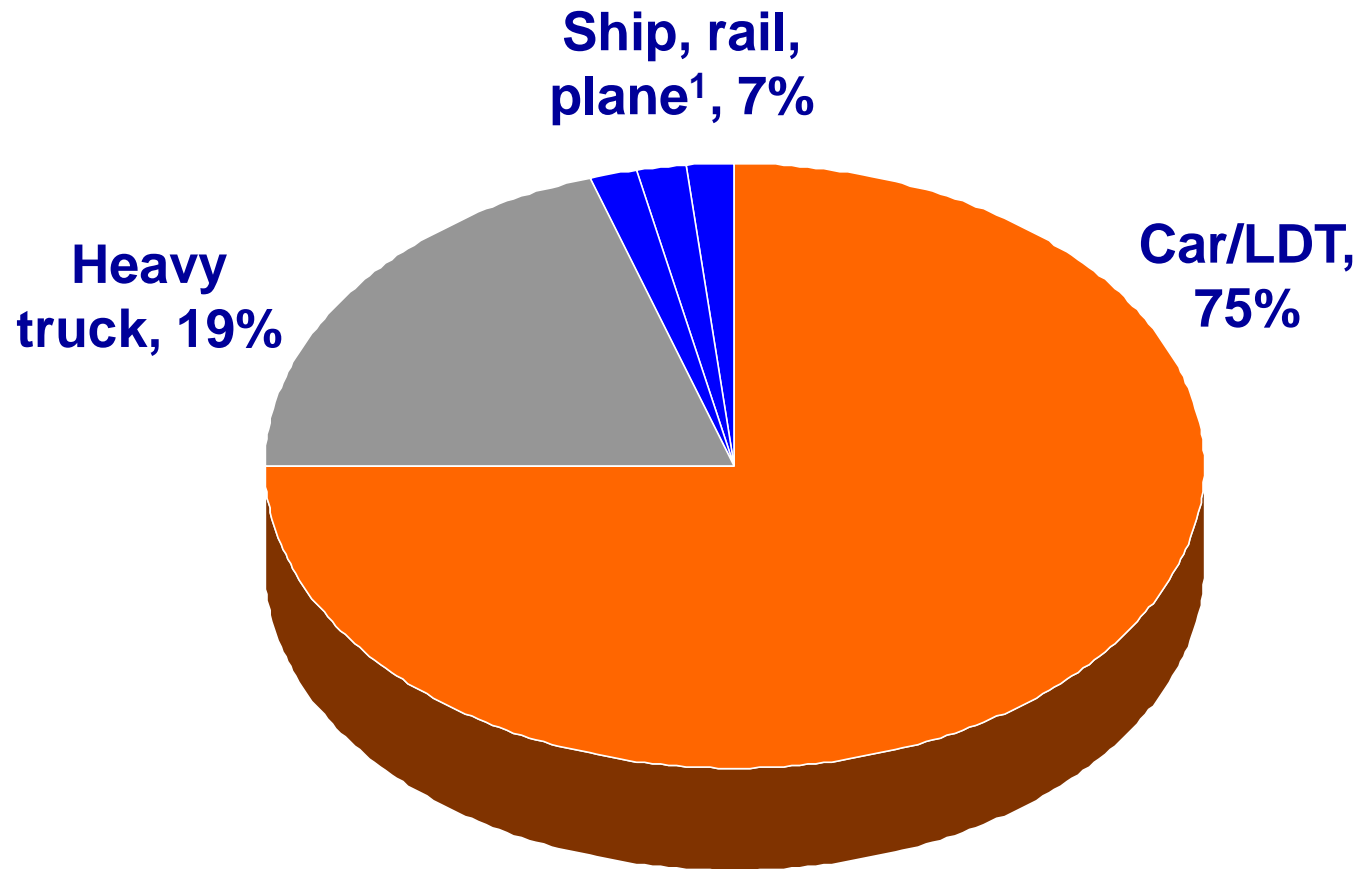
NOx by Category



Sources of GHG Emissions



Transportation GHG Emissions



Courtesy of CARB

¹ Within CA



Emission Reduction Strategy

Low-Emission ICE Vehicles



Alternative Fuel ICE Vehicles



Hybrid Vehicles



Plug-In Hybrid Vehicles



Zero-Emission Vehicles



Battery Electric Vehicles ↔ Fuel Cell Vehicles



Projects Completed in 2009

- Fuel Cell Vehicle Demonstrations
 - Honda FCX
 - Mercedes Fcell A-class
 - Toyota Highlander FCHV
- Hybrid Vehicle Demonstrations
 - Plug-In Hybrid Gasoline-Electric Sprinter Van



Projects in Progress

- Plug-in Hybrid Electric Vehicles
 - 5 EnergyCS Priuses
 - 10 A123 Hymotion Priuses
 - 20 Quantum Escapes
 - Up to 3 New 2010 Plug-In Prius
- Battery Electric Vehicles
 - BMW Mini-E
 - Neighborhood Electric Vehicles



Projects in Progress

- Fuel Cell Vehicles
 - Honda Clarity
- Hydrogen ICE Vehicles
 - Five Cities Program
 - 25 Priuses
 - Extend CARB Experimental Permit
 - Fueling Infrastructure



Proposed Projects

- Quantum CNG Hybrid Escape
 - Previously Developed Hybrid Vehicle
 - Develop CNG Conversion Kit
 - Apply for CARB Certification
 - 150,000 Mile Anticipated Vehicle Life
- GM Volt
 - Plug-In EV with Gasoline Engine
 - 40 miles on Battery Power
 - 300 Miles with Gasoline Engine



Proposed Projects

- Fuel Cell Vehicles
 - Hyundai; up to 10 Borrego
 - Toyota; up to 3 Highlander
 - Honda; up to 2 Clarity
 - Daimler; up to 2 B-Class F-Cell



Proposed Projects

- Battery Electric Vehicles
 - Mitsubishi i-MiEVs
 - 2 AQMD Vehicles
 - 5 ZEV•NET Vehicles
 - Shared Vehicle Use
 - Install Level 2 (240V) Chargers
 - Install Level 1 (110V) Home Chargers
 - Analysis for Level 3 Quickcharger
 - Electric Vans
 - Ford Transit Connect

