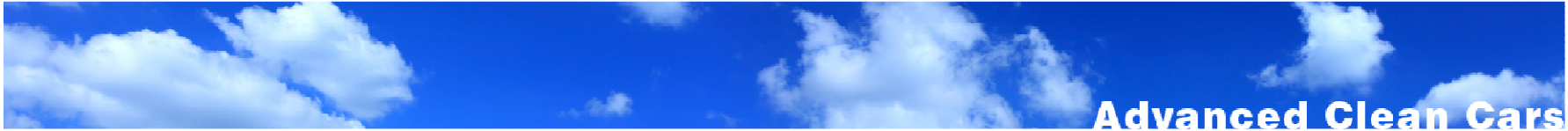


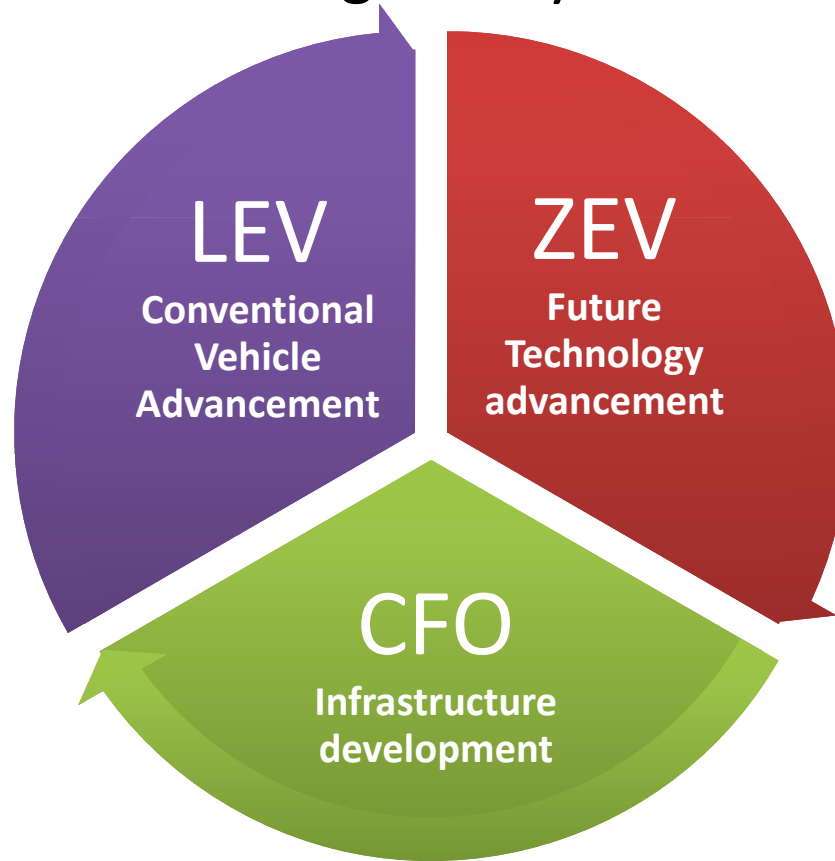
California's Advanced Clean Cars Program

Anna Wong
California Air Resources Board
March 27, 2012

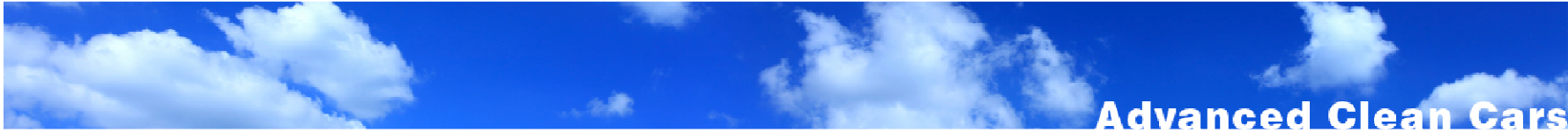
Advanced Clean Cars



Multi-pronged approach to meeting mid- and long-term emission reductions from light duty vehicles

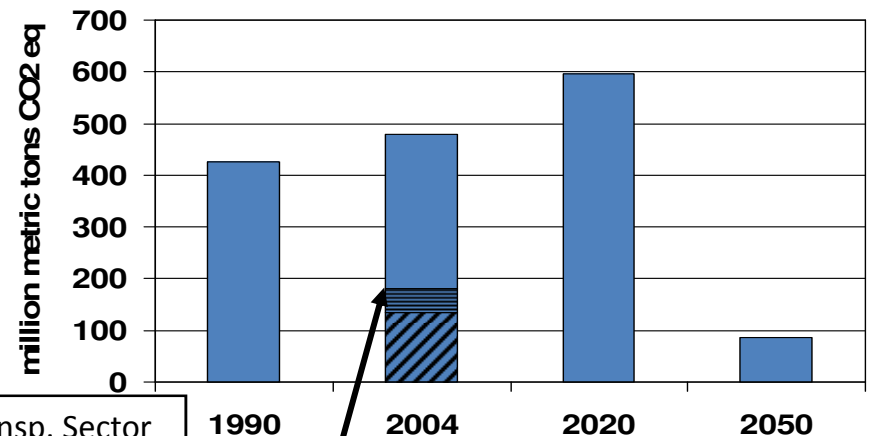
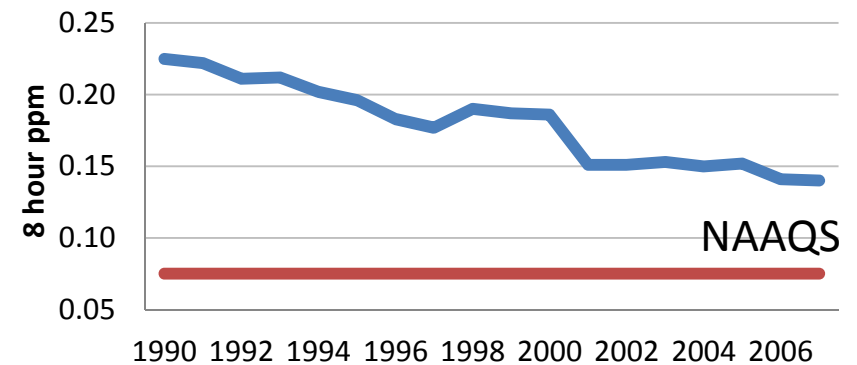


Advanced Clean Cars Program Goals



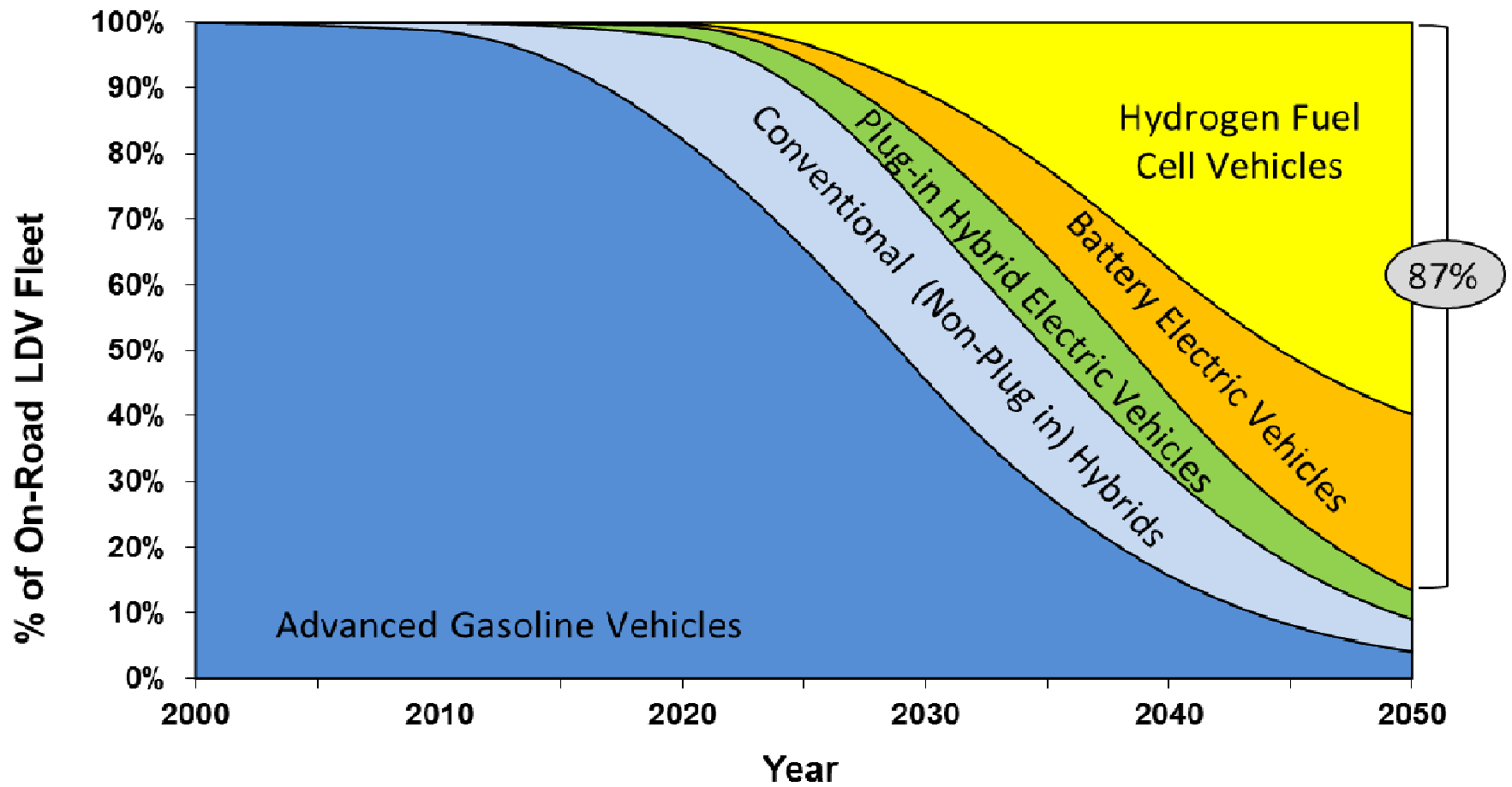
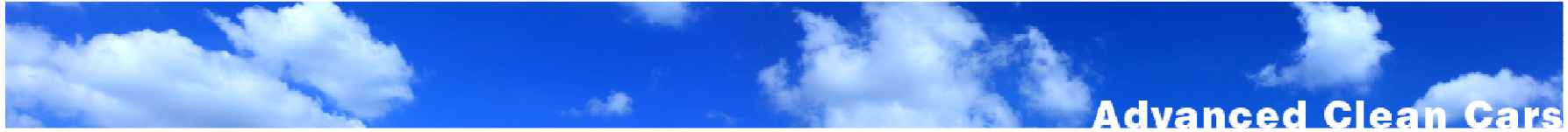
- Continued progress towards ozone attainment
- Reduce localized exposure
 - PM, toxics
- Ensure commercialization of ultra-clean vehicles

Peak Ozone South Coast Air Basin

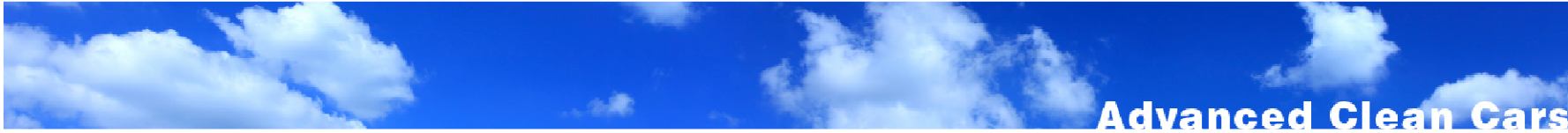


Transp. Sector
38%; LDV 28%

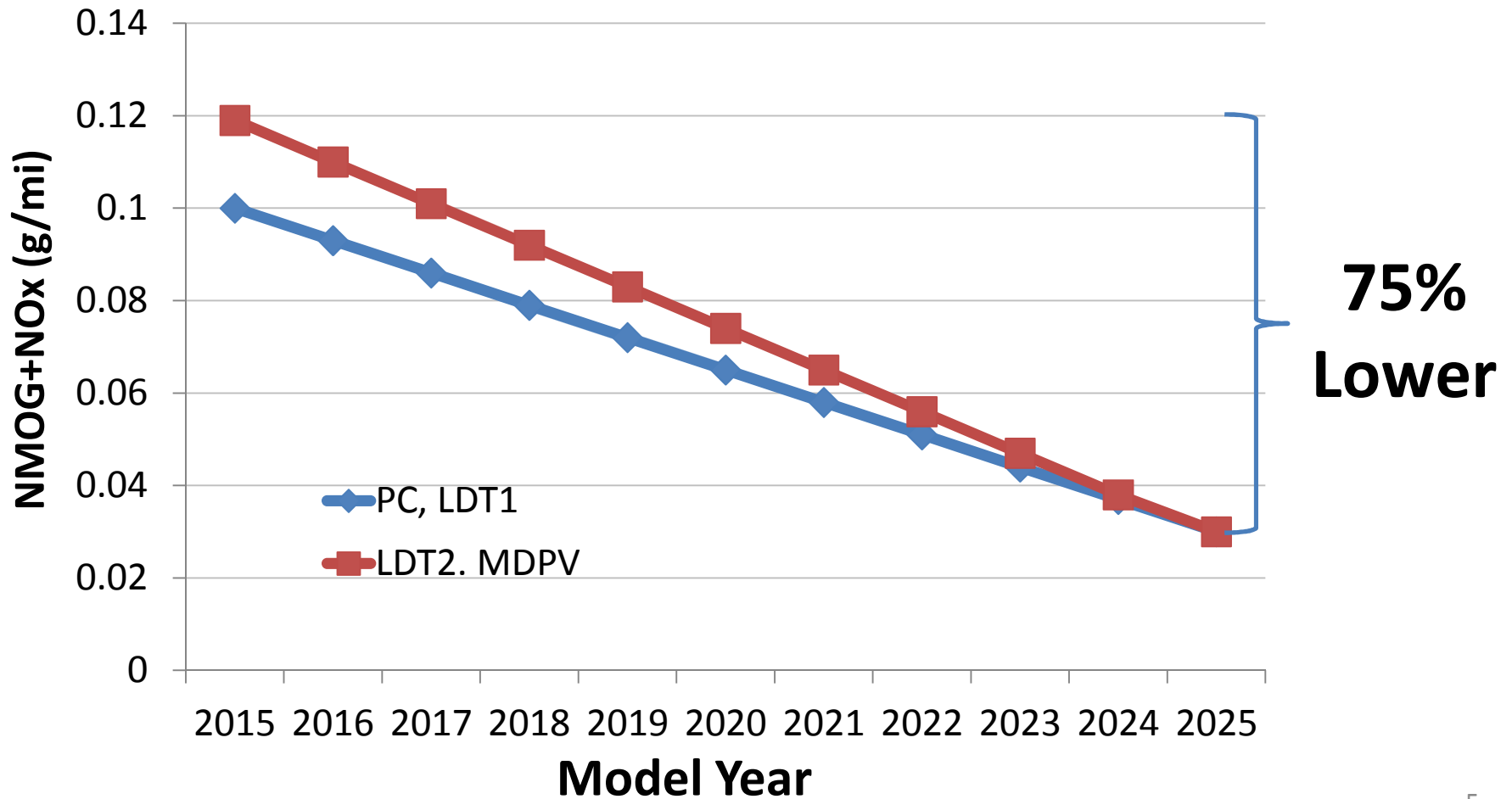
Meeting GHG Goals



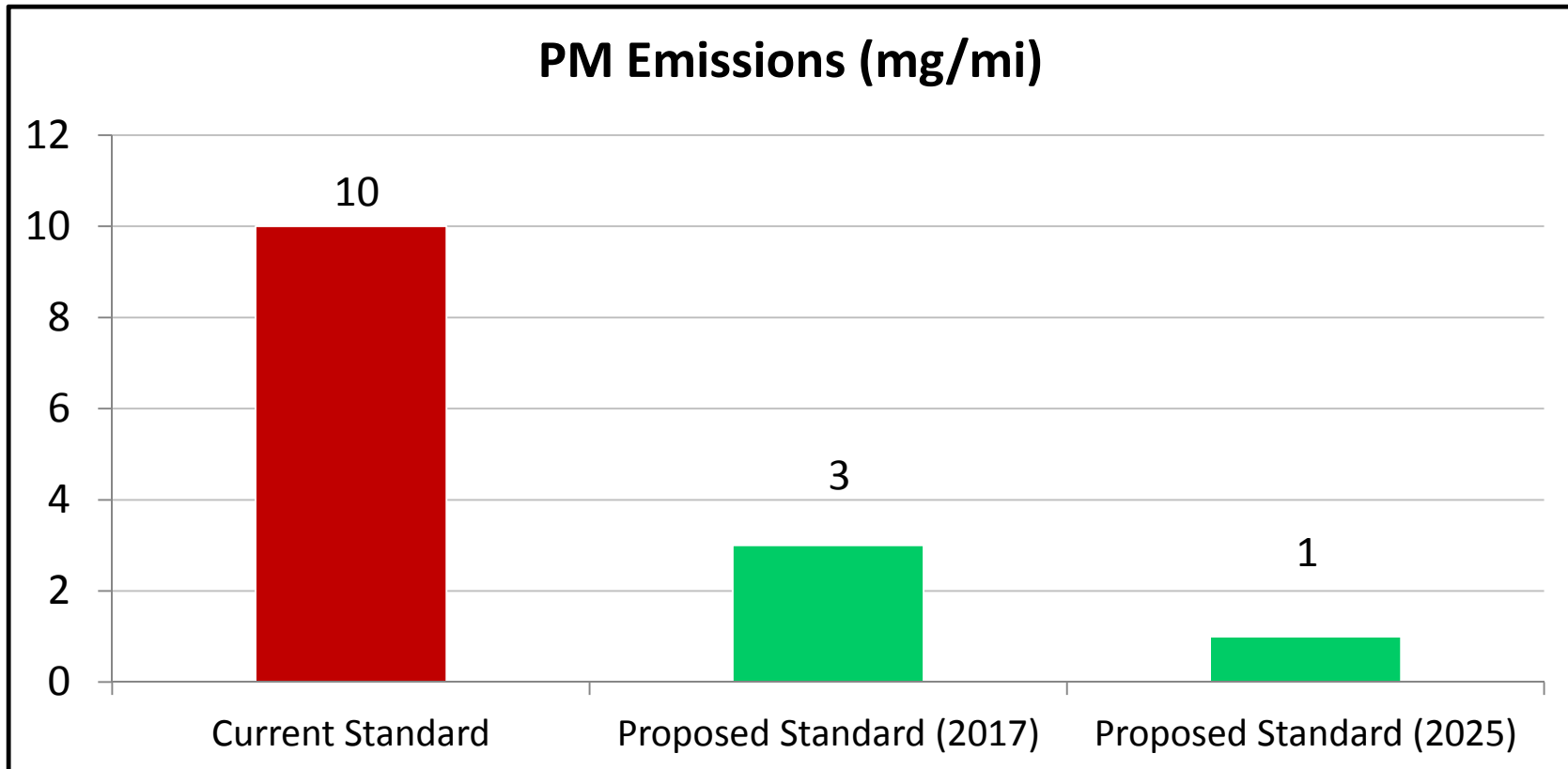
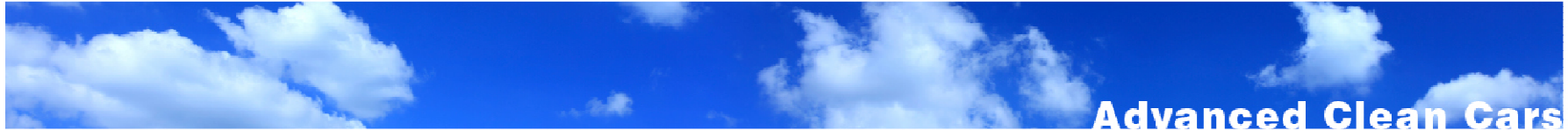
LEV III Criteria Pollutant Fleet Avg Standards



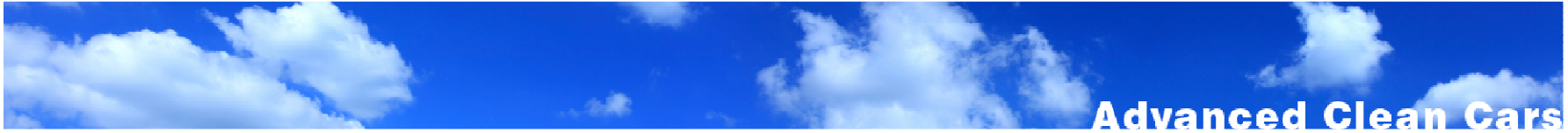
150,000-mile New Vehicle Fleet Average Emissions



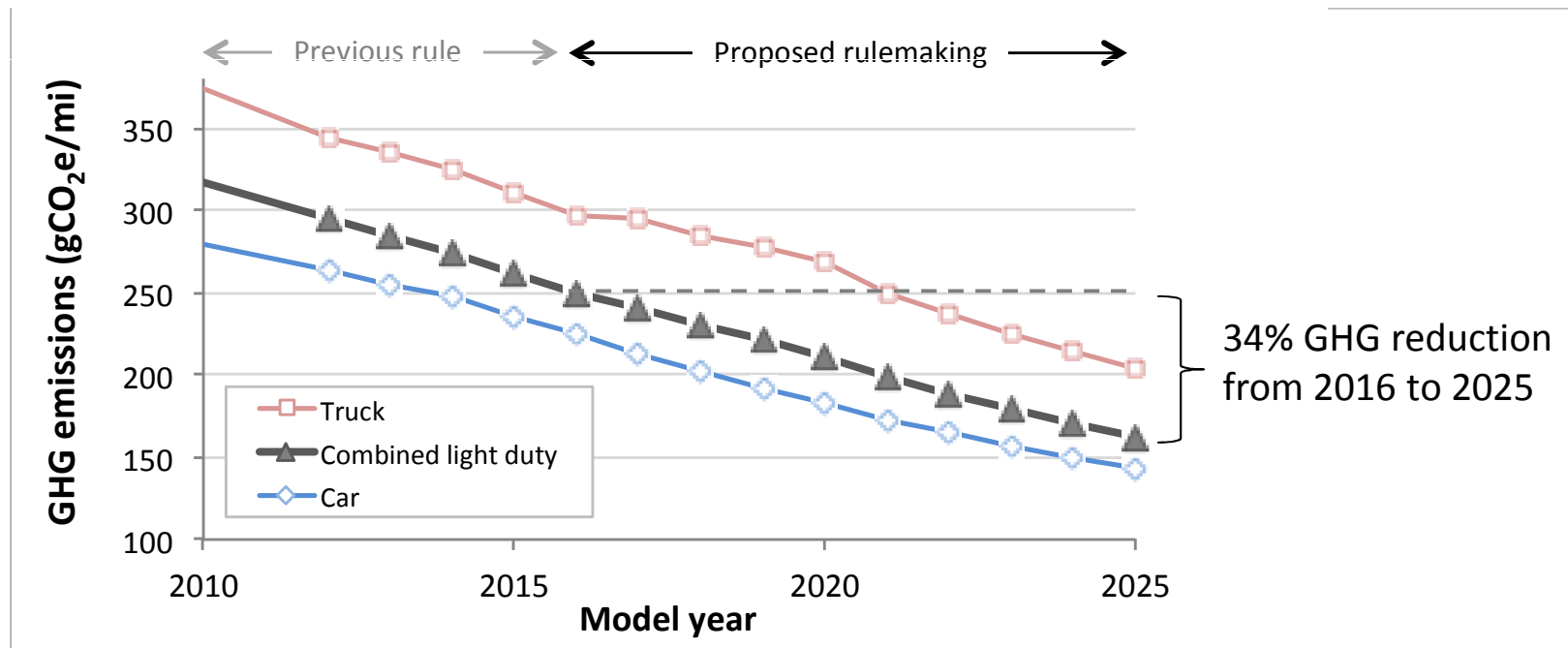
LEV III Particulate Matter Standards



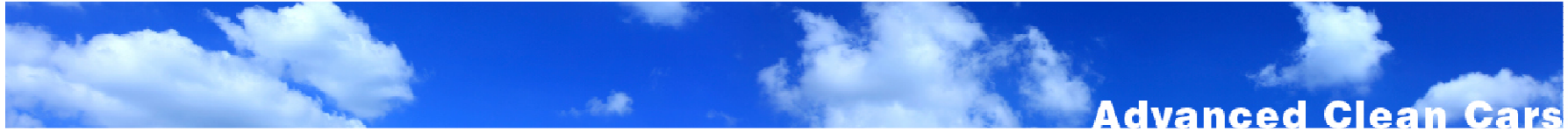
Lower GHG Standards



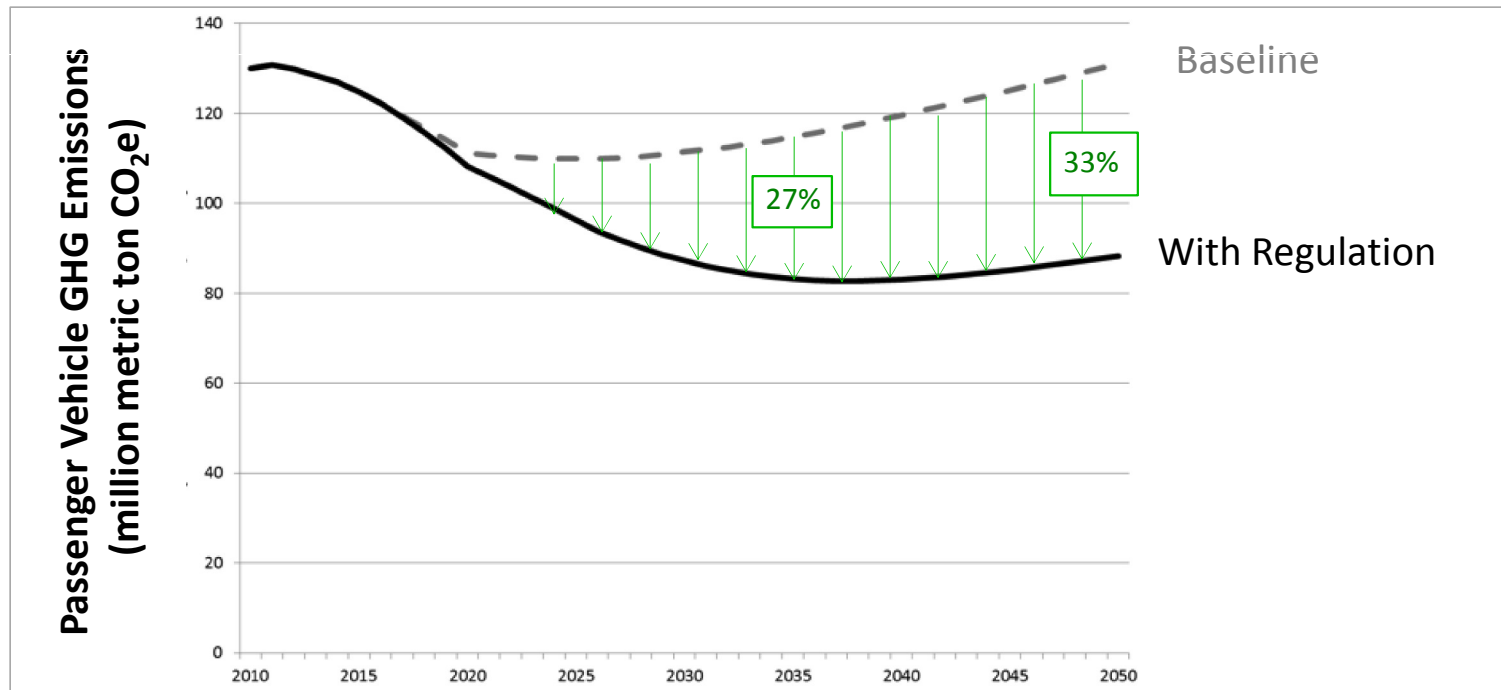
- Proposal target: 166 gCO₂e/mile by 2025
 - GHG reduction of 4.6%/year for 2017-2025 model years
 - GHG reduction of 34% from 2016 to 2025



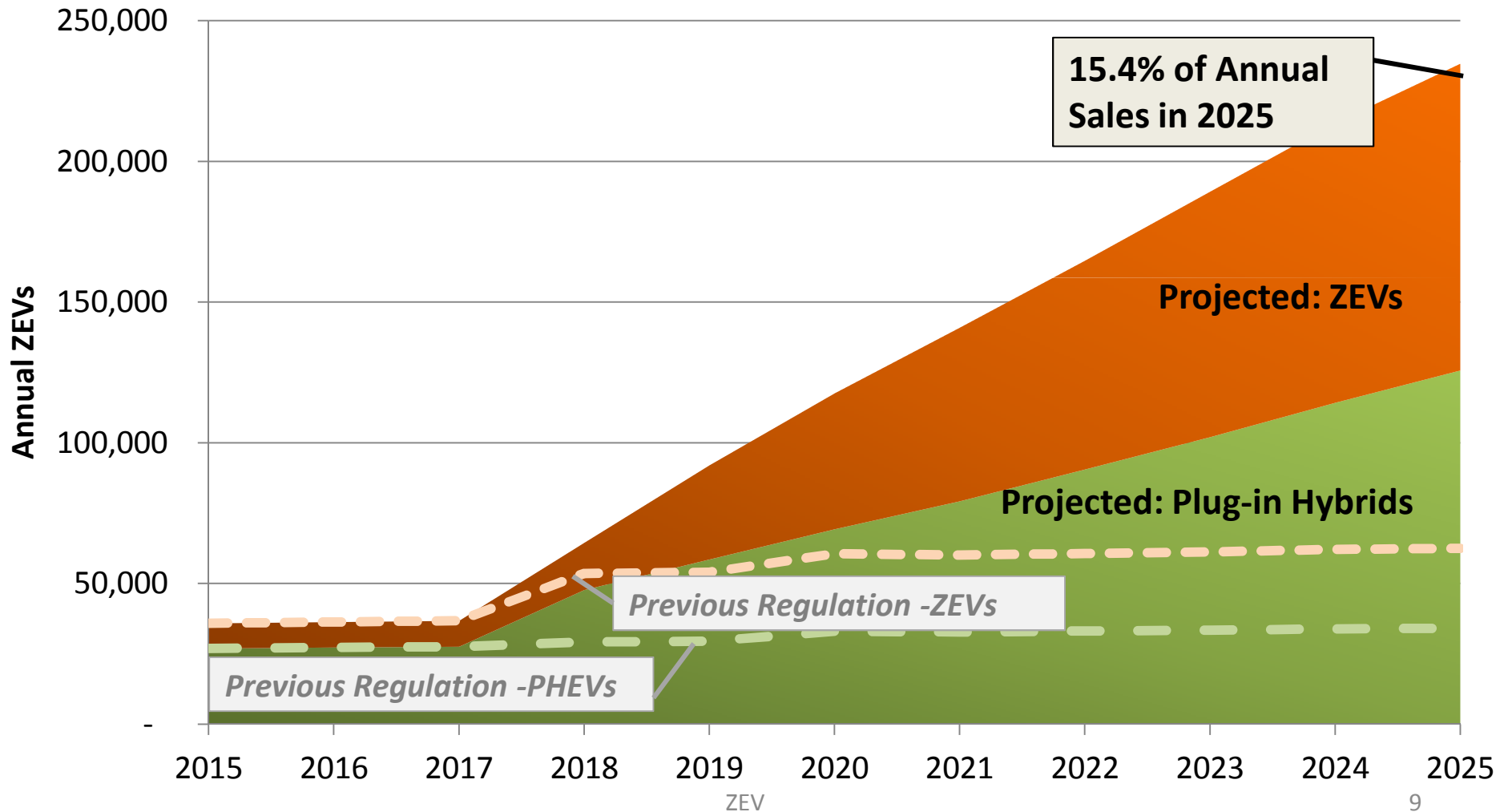
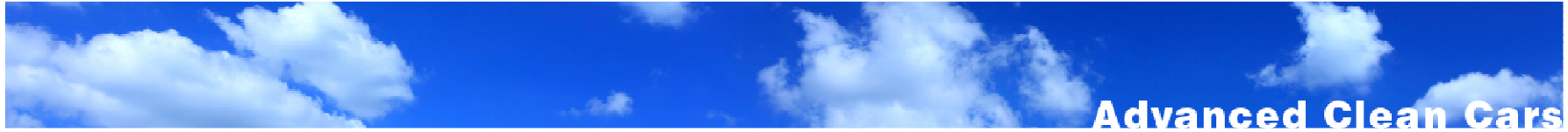
Substantial GHG Reduction



- Major impact as low-GHG vehicles replace older vehicles
 - GHG reduction in California: 27% in 2035 and 33% by 2050
 - Cumulative: 870 million metric tons through 2050



2015-2025 ZEV Requirements



How The ZEV Regulation Works

Advanced Clean Cars

- Requires large OEMs to produce zero emitting passenger vehicles



Battery Electric Vehicles



Hydrogen Fuel Cell

- May substitute some with near-zero emission vehicles



Plug-in Hybrid Electric Vehicles

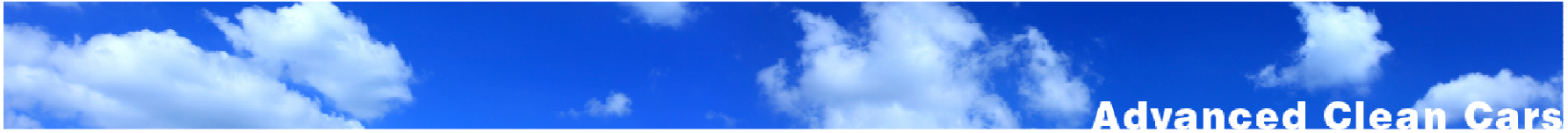


Conventional Hybrids

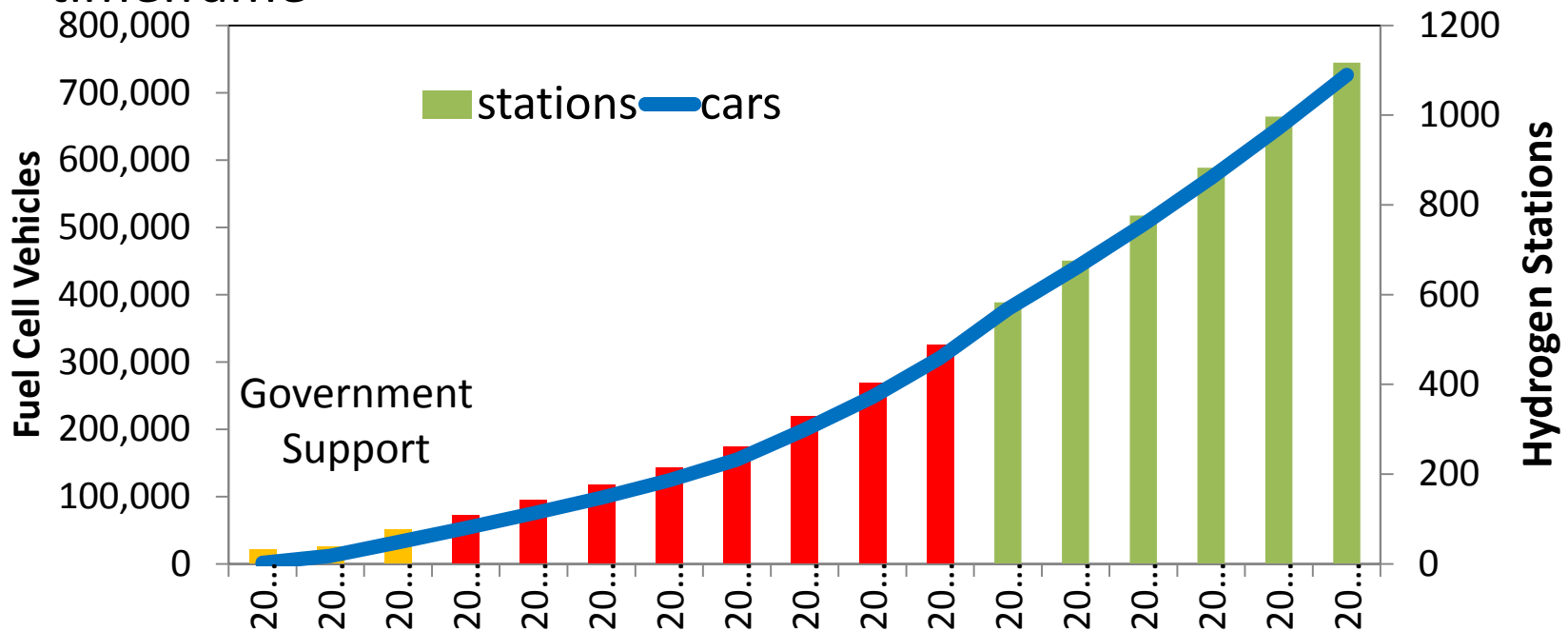


Clean Gasoline Vehicles

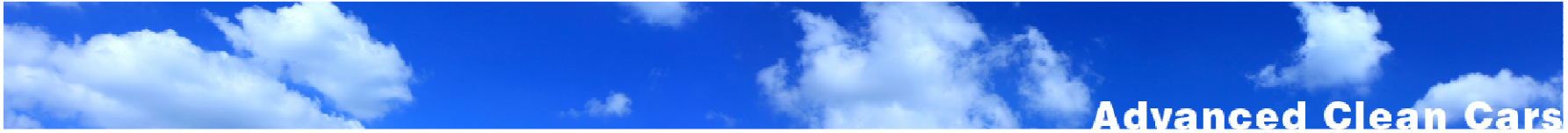
Clean Fuels Outlet



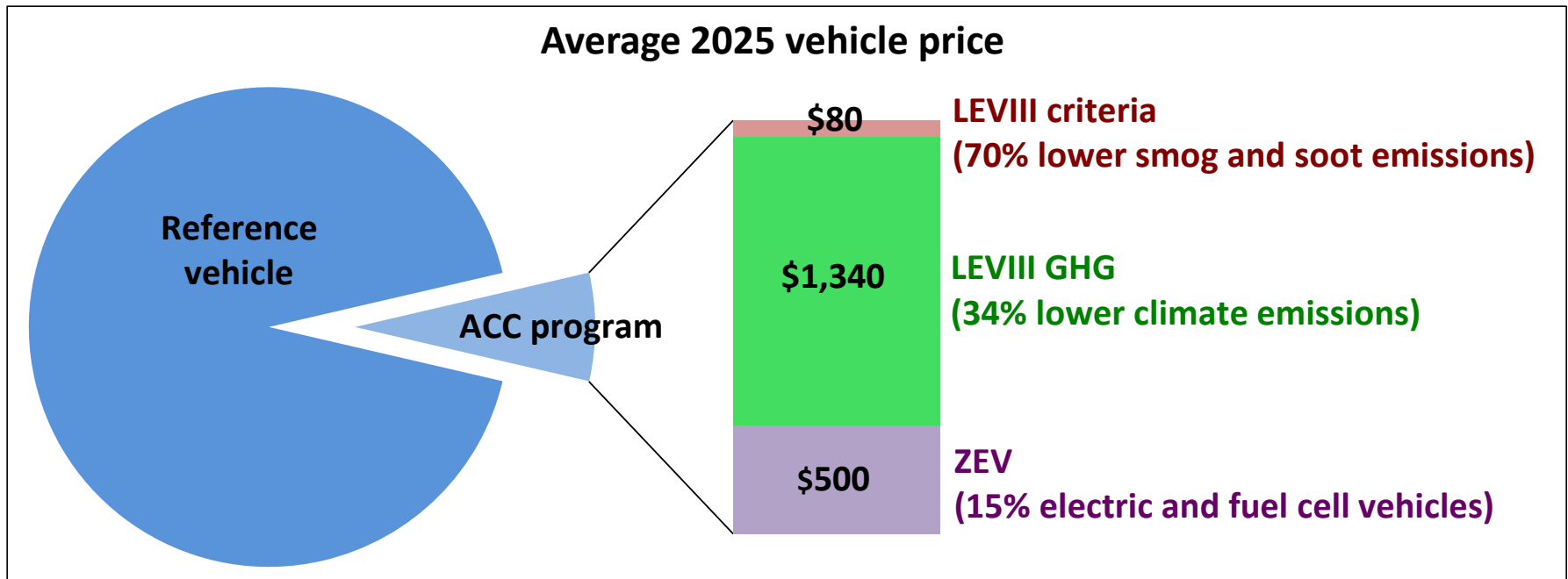
- Automaker surveys: 1,400 FCVs by 2014, 53,000 FCVs by 2017
- State infrastructure investment ~30 stations
- CFO will ensure fuel will be available in the appropriate timeframe



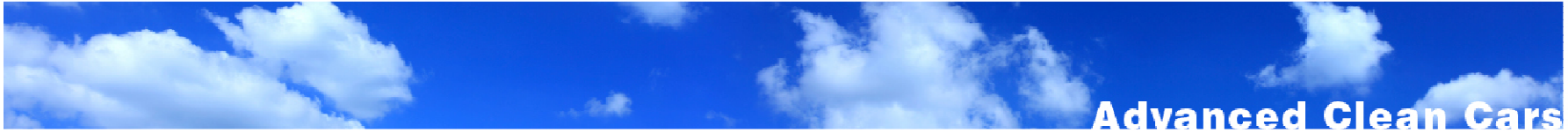
ACC Program: Vehicle Technology Cost



- Increasing costs from 2016 to 2025
 - Incremental 2025 price increase to consumers: \$1,900/vehicle
 - At \$1,900/vehicle , vehicle prices would increase by about 8%



ACC Program: Consumer impact

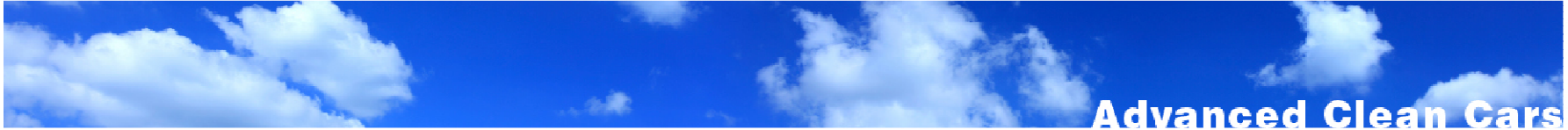


- Average 2025 vehicle consumer impact:
 - Consumer savings greatly outweigh the cost (by 3-to-1 margin)
 - “Off the lot” savings from the first month
 - Overall payback within first vehicle purchaser

Lifetime effect per vehicle	Incremental technology price	\$1,900
	Lifetime savings	\$5,900
	Net lifetime savings	\$4,000
	Payback period	3 years
Monthly effects for financed vehicle purchase	Increased monthly payment	\$35
	Monthly fuel savings	\$48
	Net monthly savings	\$12

Note: values may not match due to rounding

Contact Us



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