



The Road to Clean Air

**Public Health and Global Warming
Benefits of Advanced Clean Car Standards**

The Road to Clean Air

Highlights the benefits of converting California's vehicle fleet from meeting current standards to the next generation of advanced clean car standards.

Answers the following :

- What are the monetary costs of vehicle emissions?
- How much pollution could we cut?
- How many health problems can we avoid?
- What will it mean for the climate and environment?
- How much fuel can we save?

Methodology

- Contracted with engineering firm TIAX, LLC for data analysis.
- Reviewed ARB, US EPA, US DOT materials on vehicle technology, emissions, fuel consumption, etc.
- Used US EPA methodology for evaluating health impacts and costs of vehicle pollution under current and future standards.
- Quantified the benefits to be achieved by moving forward to stronger 2025 standards on an annual basis.

Road to Clean Air Scenarios

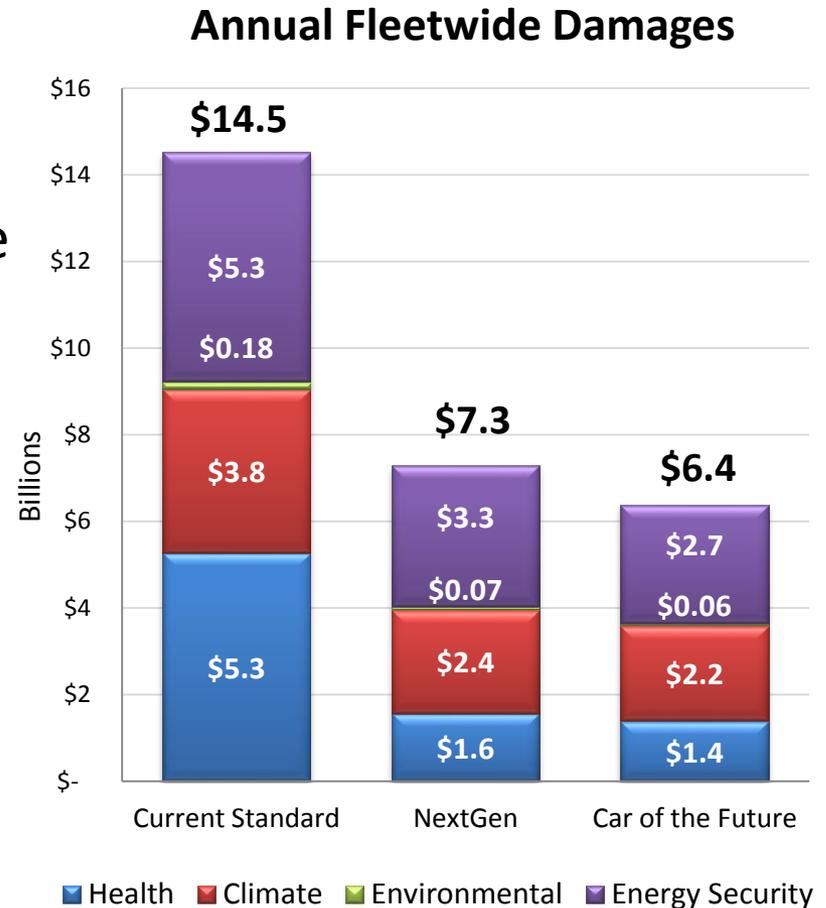
- The “Current Standard” reflects the current set of adopted vehicle standards in California.
- The “Next Generation” new vehicle scenario follows ARB’s proposed criteria pollution reduction path and an annual reduction in greenhouse gases of about 6%, or about a 45% reduction, from 2017 to 2025.
- The “Car of the Future” new vehicle scenario includes a vehicle mix that would achieve annual reduction in GHG of about 7.8%, or about a 50% reduction, from 2017 to 2025.

Overview of Findings

California could avoid over \$7.2 billion in annual health and other damages through the adoption of a strong next generation of vehicle standards.

Advanced Clean Cars Reduce:

- Air Pollution
- Cardiac/Respiratory health burdens, premature deaths
- Climate and Environmental Impacts
- Fuel Consumption and Dependency

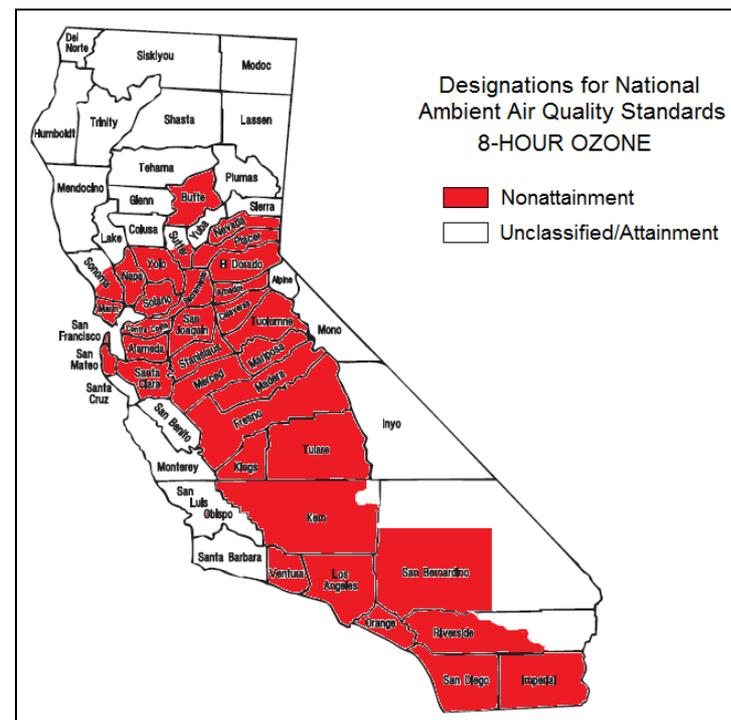


Advanced Clean Cars: Improving the State of the Air

Advanced Clean Car Standards could cut up to:

- **189 tons per day of smog-forming gases**
- **15 tons per day of PM_{2.5}**

| American Lung Association State of the Air 2011 Most Polluted Cities in America | |
|---|--|
| Ozone (CA Cities: 8 of the Top 10) | |
| #1 Los Angeles | |
| #2 Bakersfield | |
| #3 Visalia | |
| #4 Fresno | |
| #5 Sacramento | |
| #6 Hanford | |
| #7 San Diego | |
| #9 Merced | |
| Short-Term Particle Pollution (CA Cities: 6 of the Top 10) | |
| #1 Bakersfield | |
| #2 Fresno | |
| #4 Los Angeles | |
| #7 Visalia | |
| #9 Hanford (tie) | |
| #9 Sacramento (tie) | |

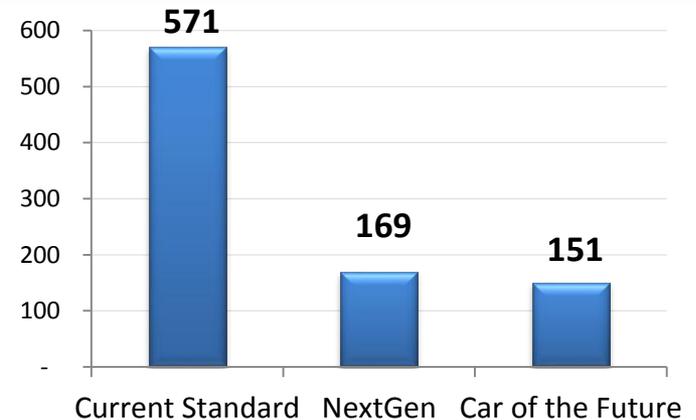


Advanced Clean Cars: Improving Public Health

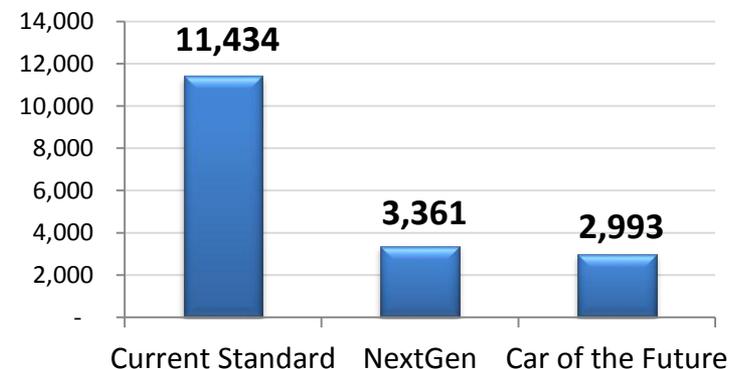
Annual Health Damages Avoided by moving forward:

- 400 - 420 premature deaths avoided
- 420 - 440 ER visits and hospitalizations (cardiac/respiratory) avoided
- 8,075 - 8,440 asthma attacks and lower respiratory symptoms avoided
- 390 - 405 heart attacks avoided
- 28,100 - 29,300 work loss days avoided
- 8,800 - 9,500 missed school days avoided

Annual Premature Deaths
Caused by 2025 Fleet



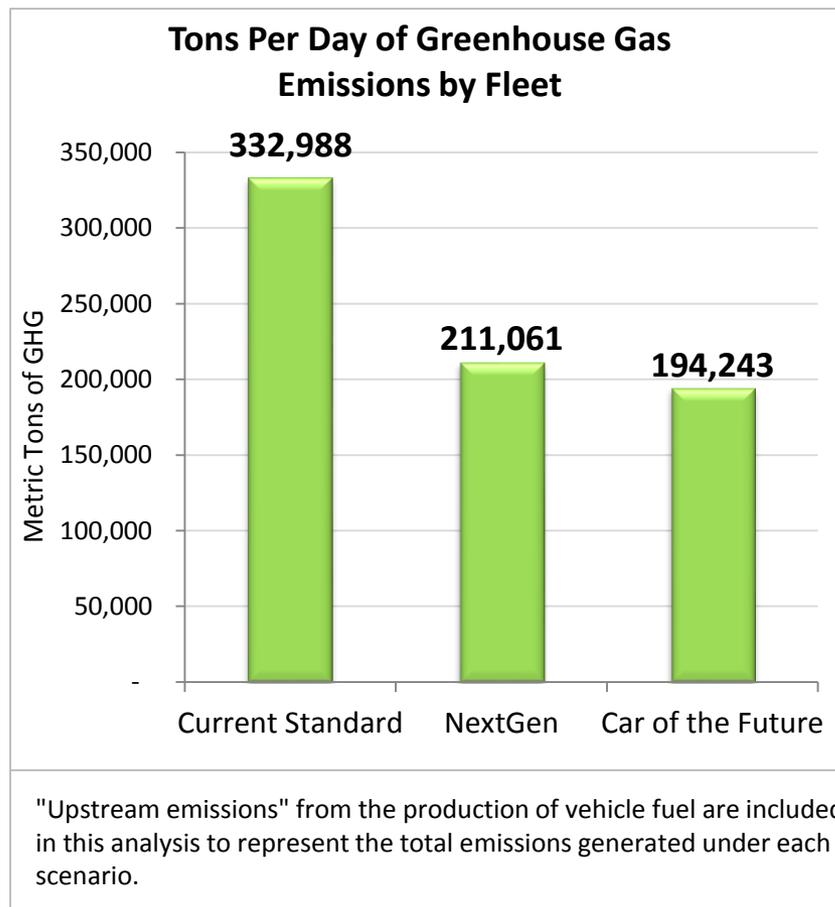
Annual Asthma Attacks & Lower Respiratory
Symptoms Caused by 2025 Fleet



Advanced Clean Cars and Climate Change

Compared to current standards, advanced clean cars will emit significantly fewer greenhouse gases:

- Total Reduction:
45 – 52% from 2017 to 2025
- Annual Costs avoided:
\$1.4 - \$1.6 billion



Advanced Clean Cars: Kicking the Oil Habit

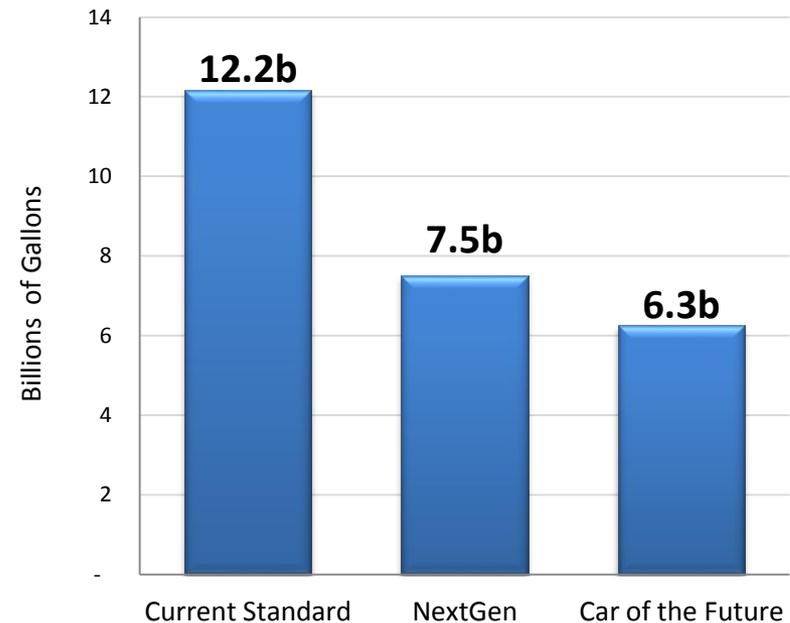
Strong standards will call for more advanced low-and no-petroleum vehicles.

Compared to current standards, the Road to Clean Air found that advanced standards reduce petroleum consumption by **38 - 49%**

\$780 in annual gas savings per car

*With each gallon of gasoline consumed, an average vehicle meeting the current standards adds \$1.19 in public health and other damages that don't show up at the pump – **or about \$20 per tank.***

Annual Fleetwide Gallons of Gasoline Consumed



Road to Clean Air

Available online:

www.lungusa.org/california-cleancars

Questions or Comments:

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