



# Transportation and Climate Policy

Pew Center  
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# Impacts of Climate Change on California - 2100

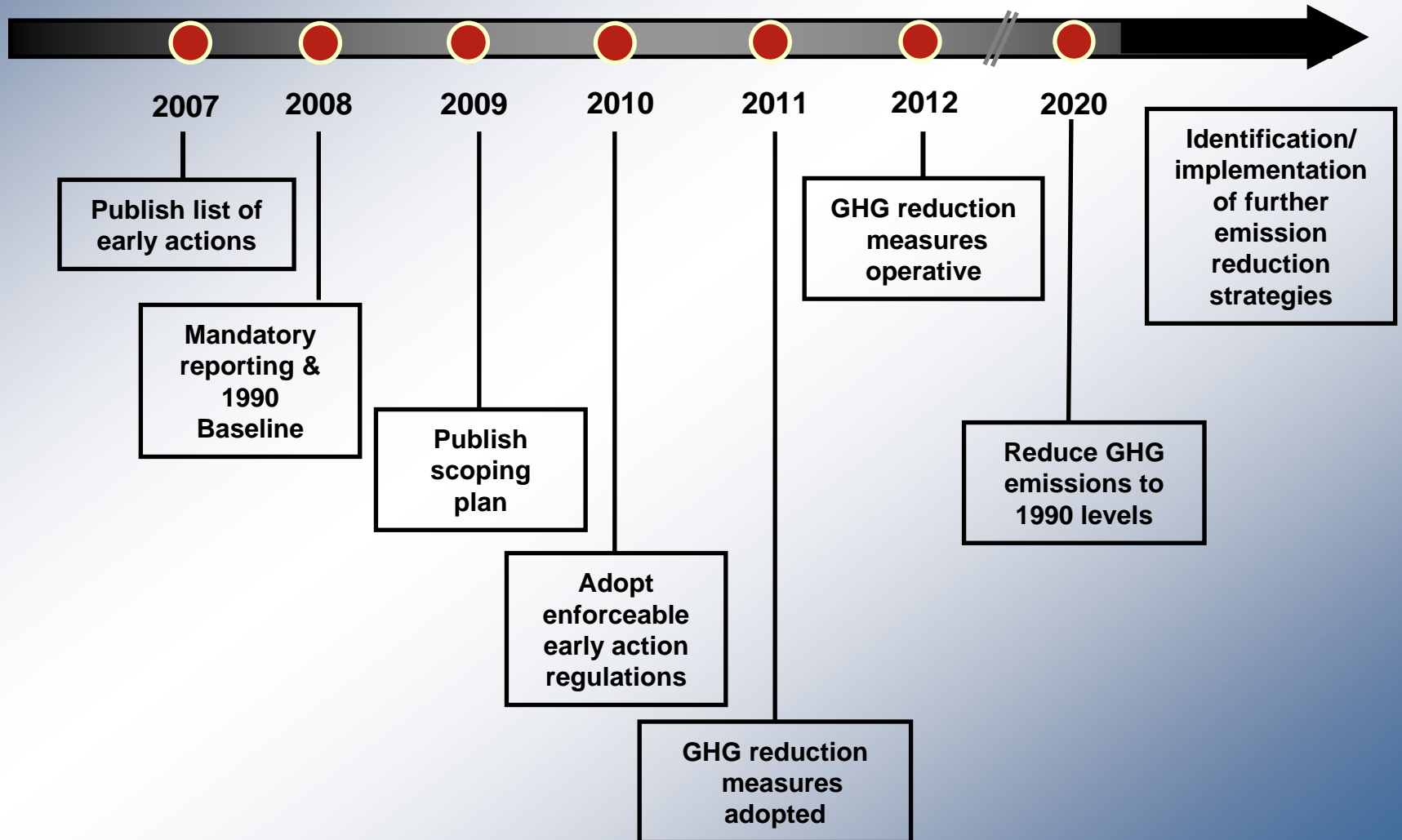
- 75% loss in snow pack
- 1-2 foot sea level rise
- 70 more extreme heat days/year
- 80% more 'likely ozone' days
- 55% more large forest fires
- Twice the drought years

# California Global Warming Solutions Act of 2006 (AB 32)

- Creates a state program for controlling climate change emissions
- Reduce GHG emissions to 1990 levels by 2020
- ARB charged with monitoring/regulating sources of greenhouse gases in order to reduce emissions

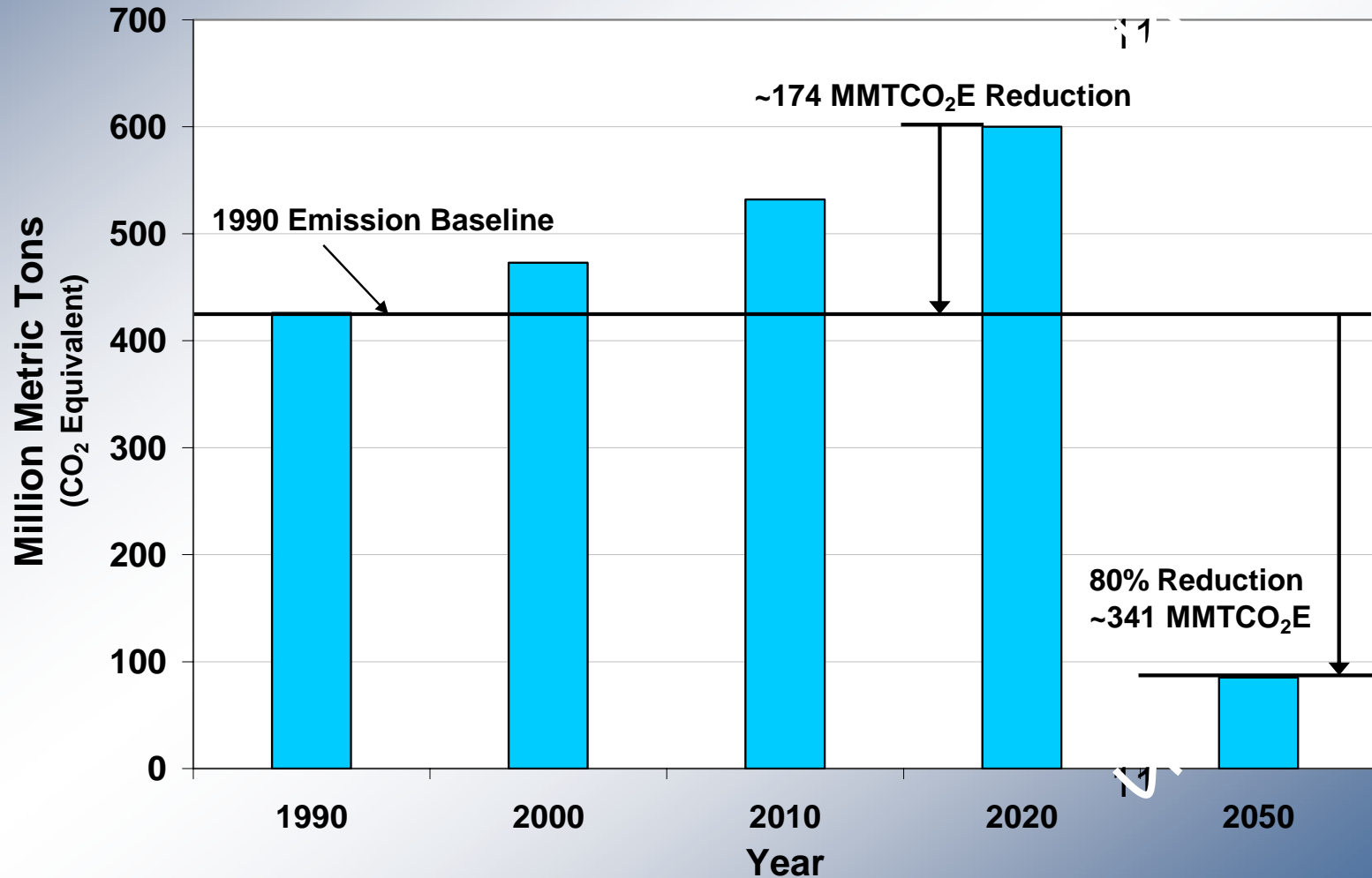


# AB 32 Timeline

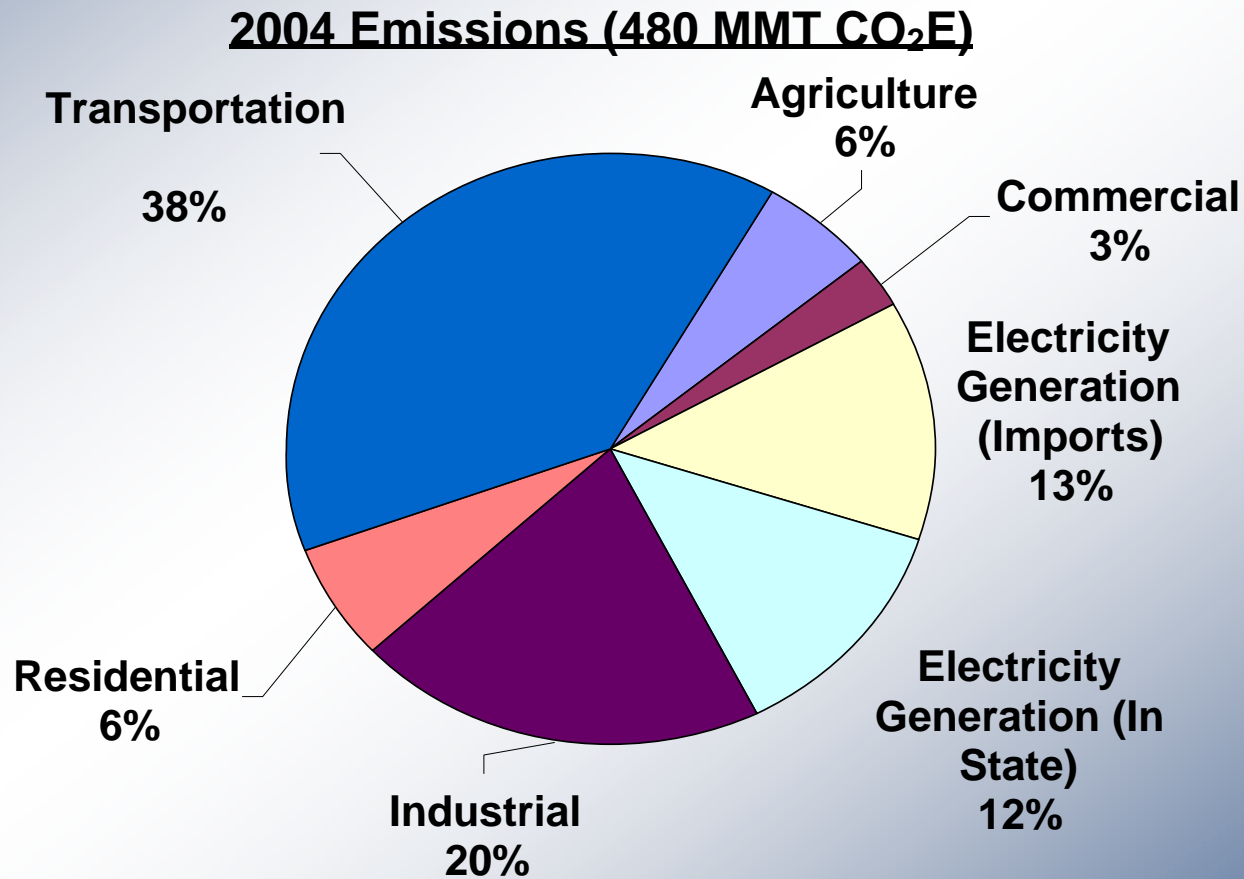


# Magnitude of the Challenge

CAT Report Emissions



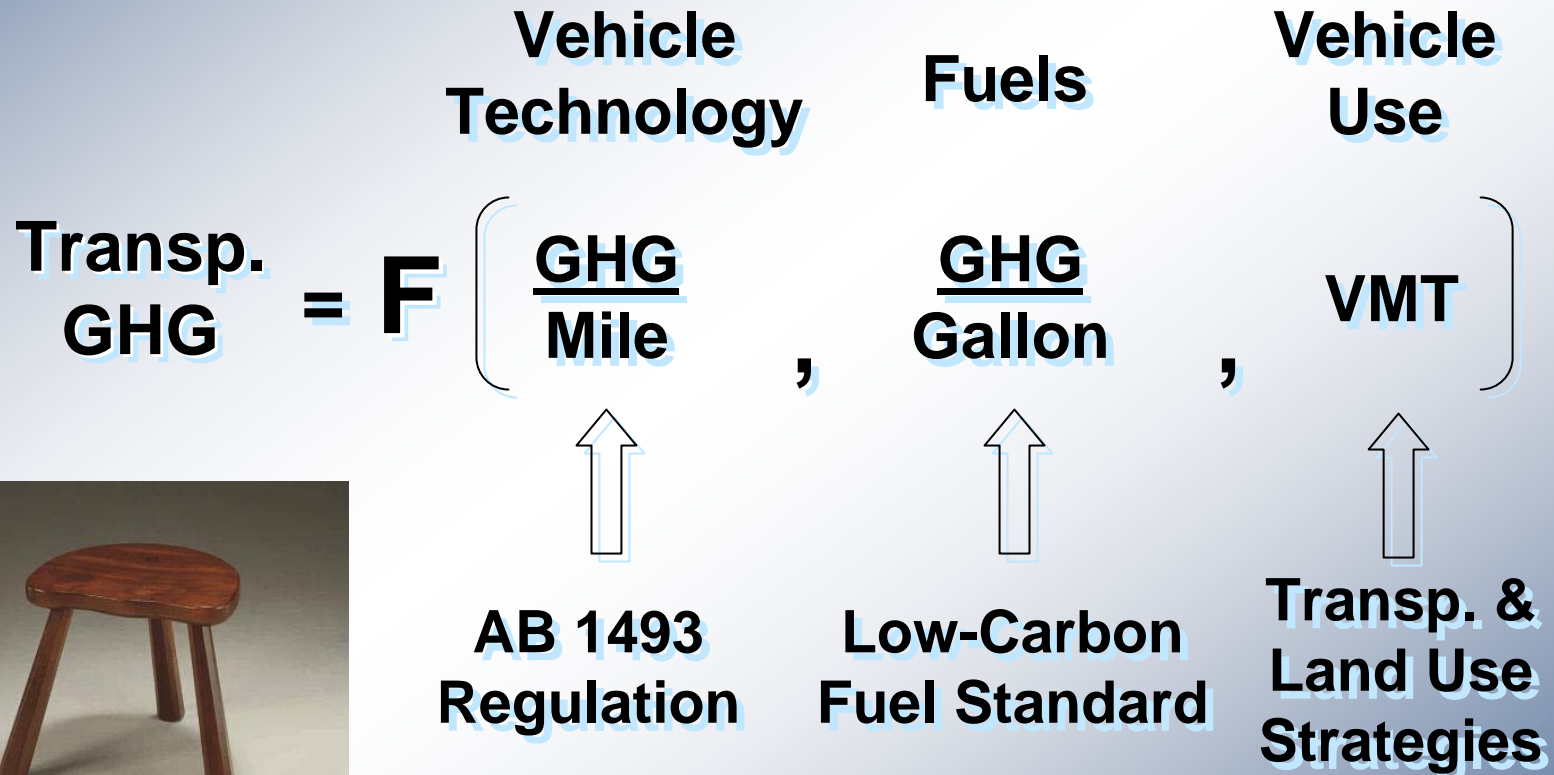
# Transportation largest source of GHG's in California



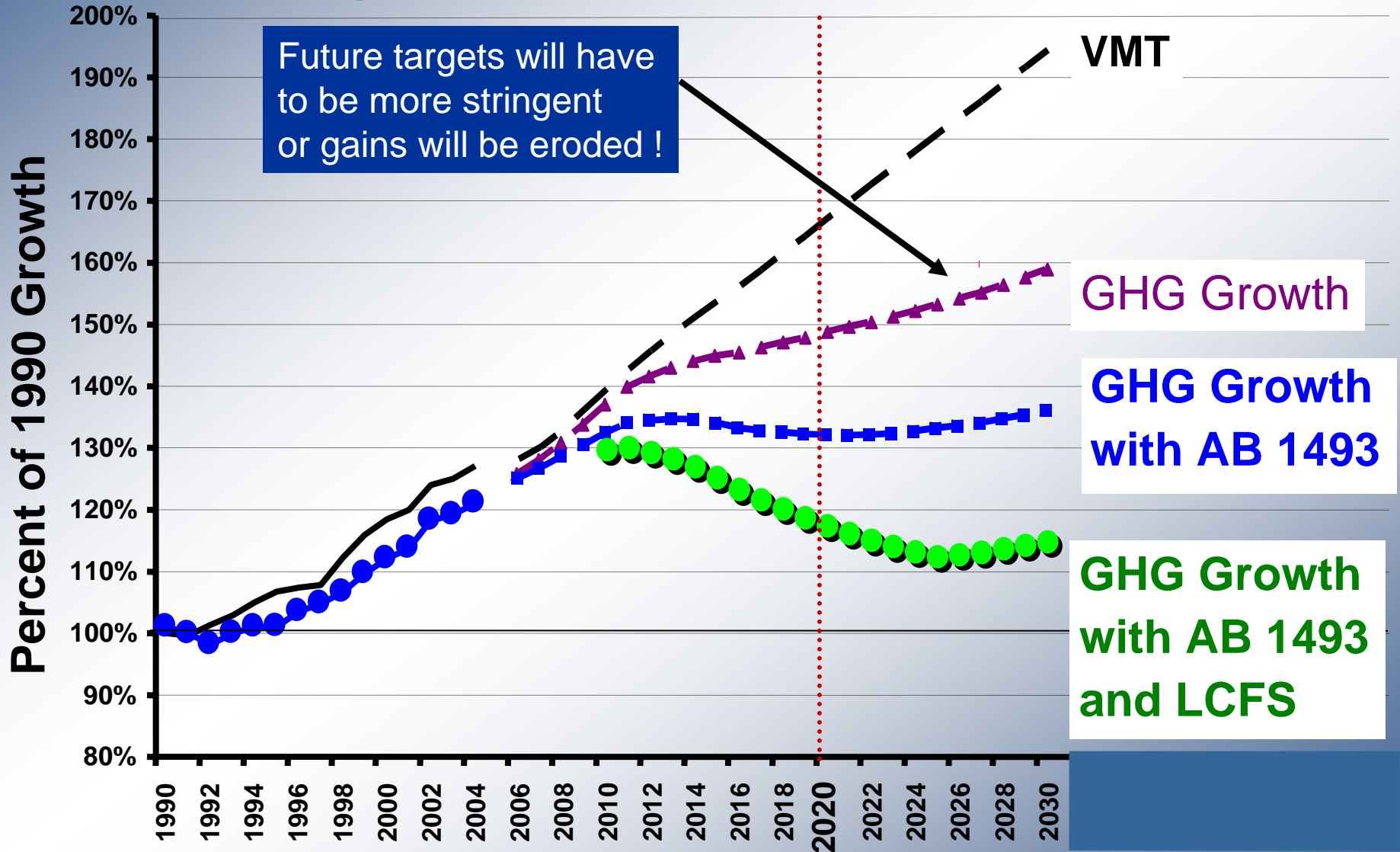
# Transportation in California

- California has 25+ million gasoline-powered vehicles
- VMT and fuel use projected to increase between 1990 to 2020
- Significant reductions in transportation emissions essential for achieving 2020 target

# Strategies for Reducing Transportation GHGs



# Achieving real reductions will require effort in each area



# AB 1493 Greenhouse Gas Vehicle Standards

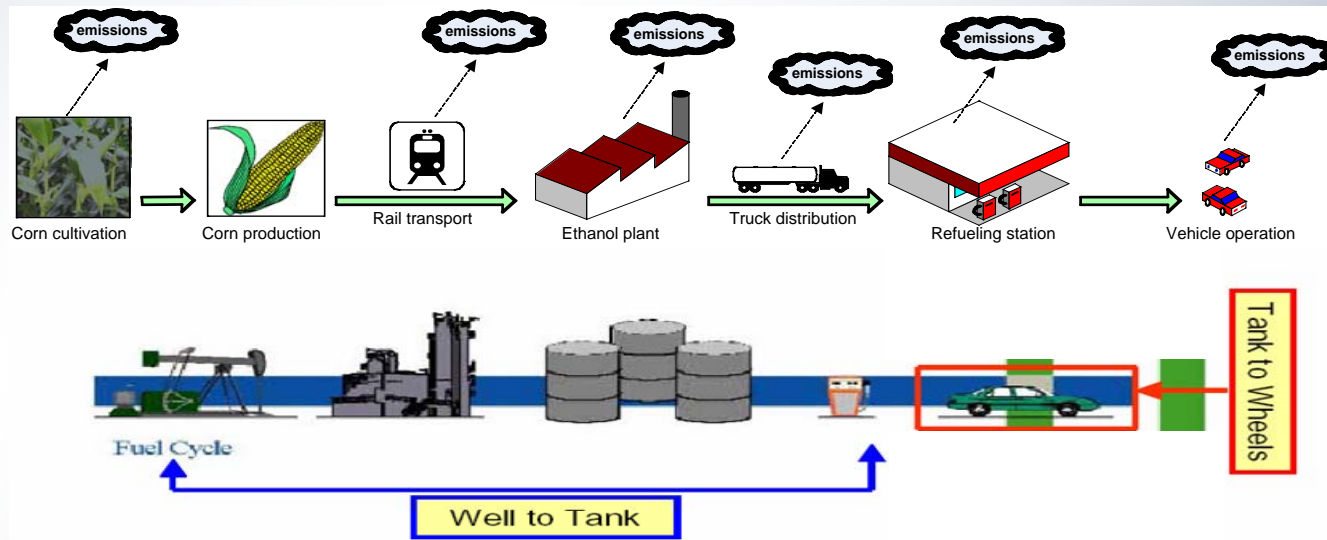
- ARB adopted regulations in 2002
- Set limits on the amount of greenhouse gases from new passenger vehicles sold in California
- Estimated 18% fleet wide reduction by 2020 and 27% reduction by 2030
- If all 19 states that are planning to adopt California's vehicle standards do so, the additional GHG benefits (compared to new federal CAFE) are expected to be 315 million metric tons (CO<sub>2</sub> equiv.) by the year 2020, an 85% increase.

# The Low Carbon Fuel Standard

- Statewide goal to reduce the *carbon intensity* of California's transportation fuels by at least 10 percent by 2020
- Fuel providers to decrease greenhouse gas emissions on a life-cycle basis – the carbon-intensity- of average fuel sold
- Governs intensity, not amount sold
- Performance based: sets carbon reduction standards and methods to calculate compliance
- Market-based: allows averaging, banking and trading to lower cost and provide flexibility
- Fuel-neutral: fuel providers can choose which fuels to sell and in what volumes

# Principles Underlying LCFS

- Create durable framework for near and long term transition to low carbon fuels
- Stimulate technology innovation
- Use lifecycle approach



# Policy and Regulatory Challenges

- Reconcile state and federal LCFS, federal RFS, and international efforts
- Include direct and indirect land use changes and other lifecycle inputs
- Develop regulatory language and mechanics of implementation
- In cooperative national and international effort, develop sustainability criteria
- Address local environmental justice issues

# Status of ARB Efforts

- Release draft proposal in March 2008
  - Identify basic approach
  - Request comments on specific approaches
- Continue four working groups: policy, lifecycle analysis, compliance and enforcement, and environmental and economic impacts
- Engage top experts to help address direct and indirect land use issues
- Board hearing to consider in December 2008

# Relation to Federal Activity

- America's Climate Security Act (Warner/Lieberman) contains LCFS with similar targets (10% reduction by 2020)
- Current Renewable Fuel Standard (RFS) law contains requirements for reduction in life cycle emissions (20-60%)
- ARB will need to evaluate RFS as part of LCFS effort to ensure there are no conflicting requirements

# Summary Observations

- Reducing greenhouse gas emissions from the transportation sector will require a comprehensive approach (vehicles, fuels, demand)
  - Includes improving efficiency of passenger vehicles, lowering the carbon content of fuel, and implementing better land use planning to reduce VMT
- Climate policy should address the full life cycle of impacts
- California and other states are moving forward with innovative climate policy solutions
- Achieving our climate goals will ultimately require a comprehensive national and international solution

Thank you!