

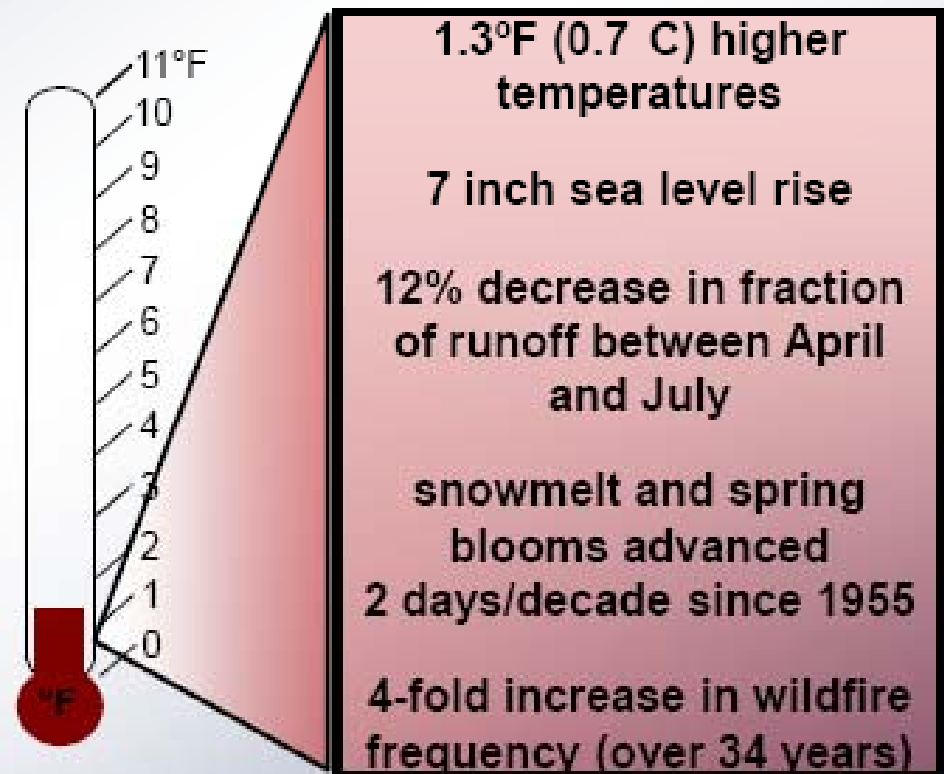
# Status of Regs/Endangerment and the California Waiver



Larry Greene, Executive Director Sacramento  
Metropolitan AQMD

# California Climate Impacts

over the past 100 years



Cal/EPA-OEHHA, "Environmental Protection Indicators for California" (2002),  
[www.oehha.ca.gov/multimedia/epic/Epicreport.html](http://www.oehha.ca.gov/multimedia/epic/Epicreport.html)

Westerling et al., "Warming and Earlier Spring Increase Western U.S. Forest Wildfire Activity", *Science* (2006)

# Lyell Glacier

## Yosemite National Park



1903

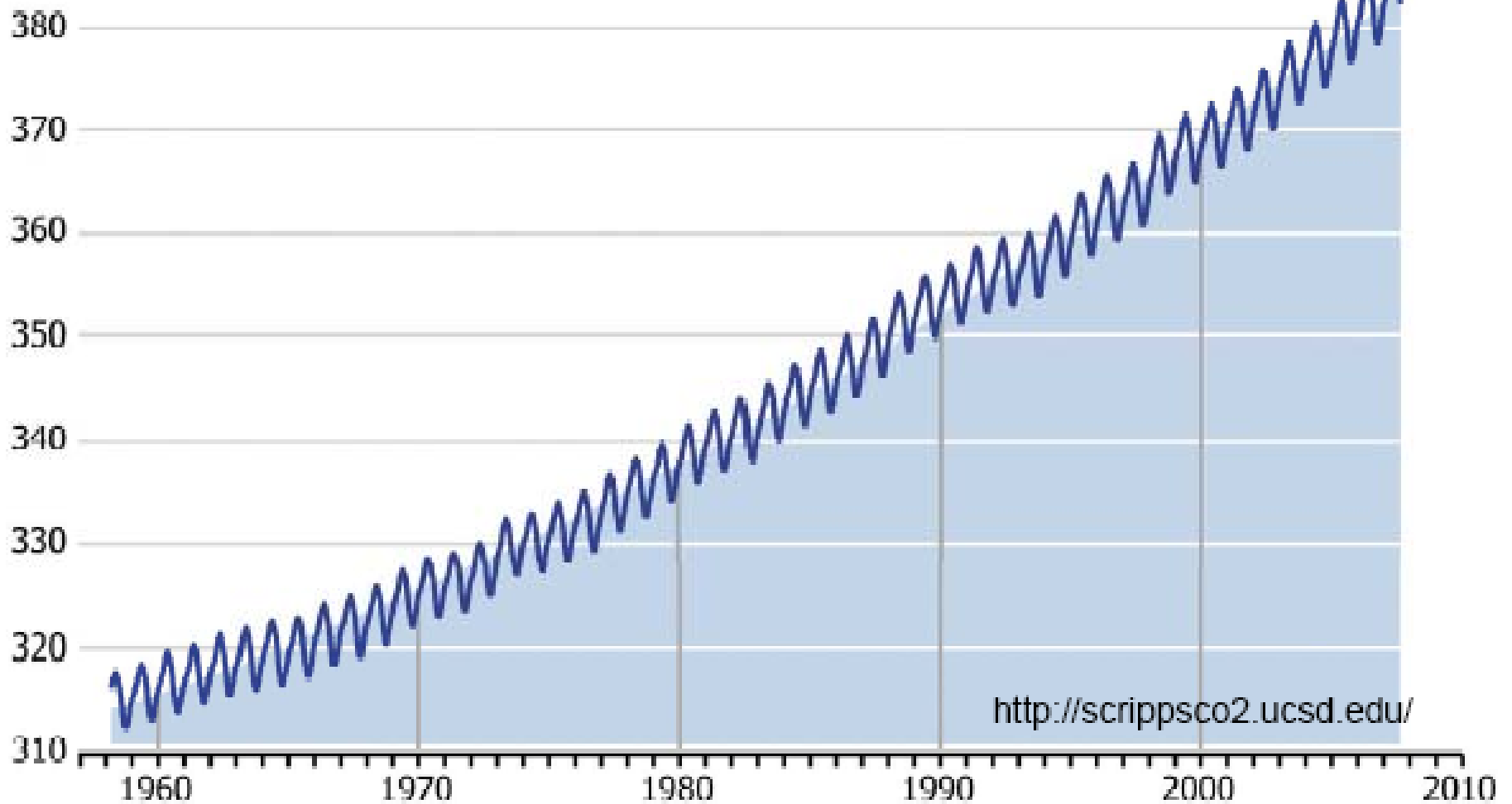
2003



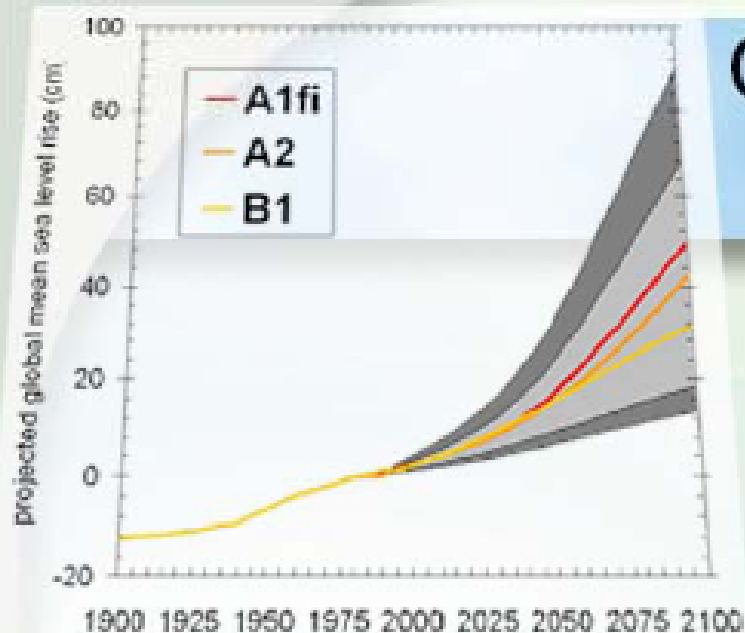
# The Keeling Curve at 50

## Monthly Carbon Dioxide Concentration

parts per million



## Climate Change Impacts 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









# Governor's Executive Orders

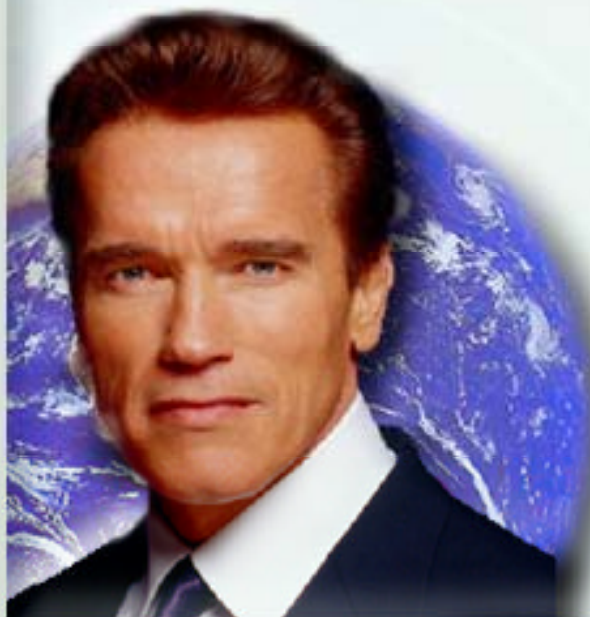
## Greenhouse gas reduction targets

By:

- 2010 reduce to 2000 levels\*
- 2020 reduce to 1990 levels\*\*
- 2050 reduce to 80% below 1990 levels

\* Equals approximately 60 million tons emission reduction, 11% below business as usual

\*\* Equals approximately 174 million tons emission reduction, 30% below BAU





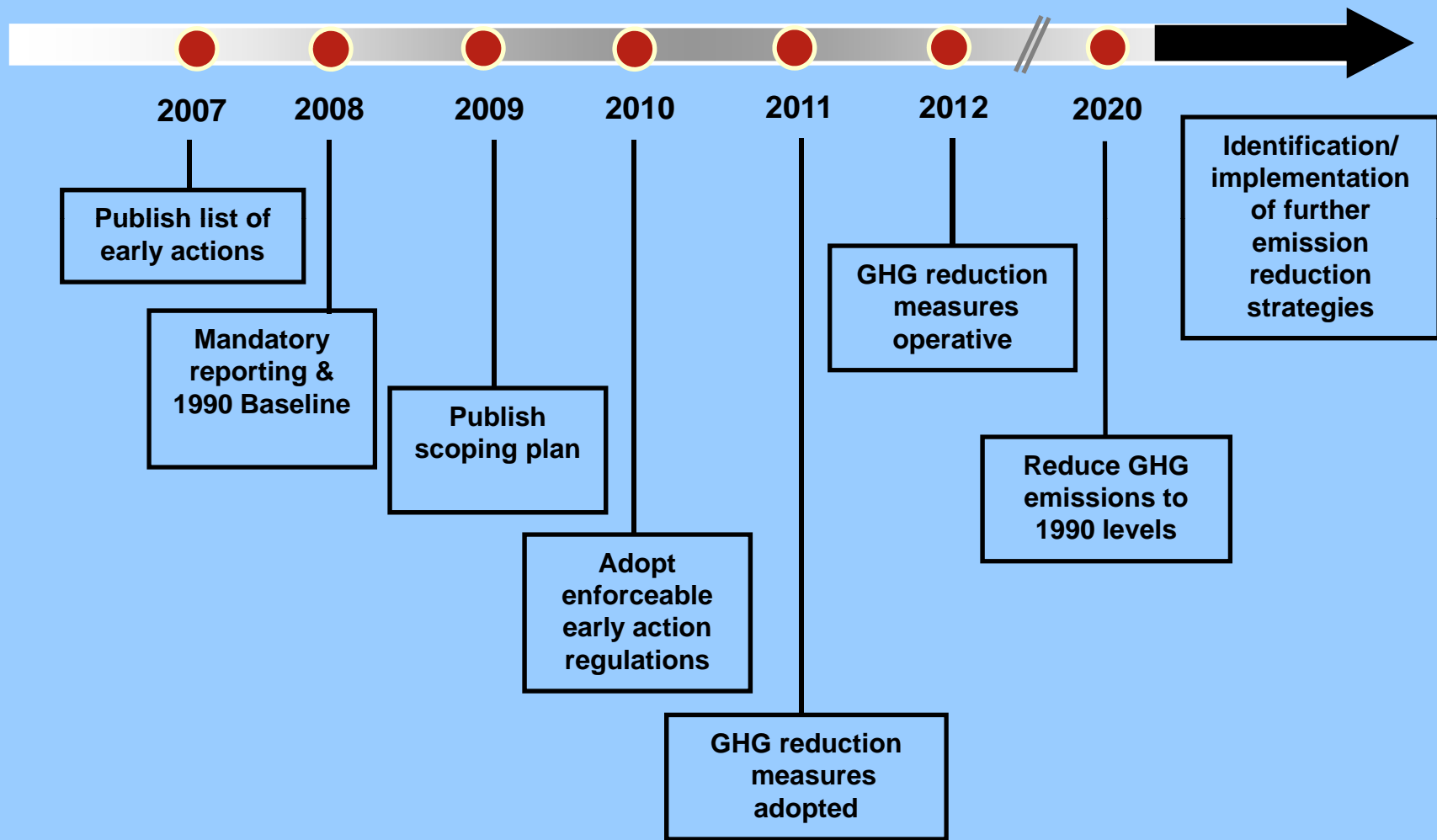
# AB 32 Signed into Law

Sept 27, 2006



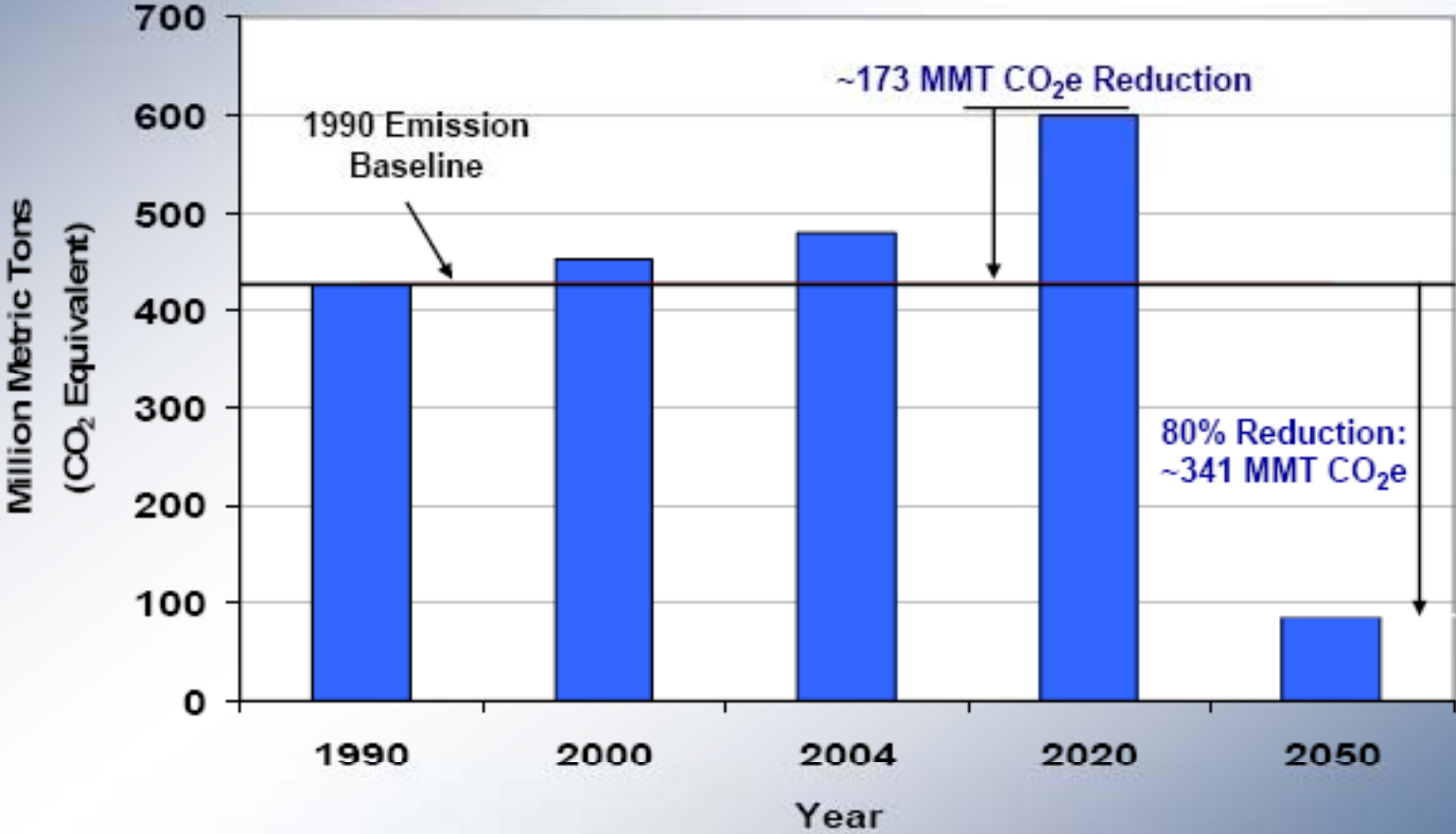
## **AB 32 Timeline**

- 1/1/07: ARB maintains statewide inventory**
- 6/30/07: List of discrete early actions**
- 1/1/08: Mandatory reporting of emissions  
Adopt 1990 baseline/2020 target**
- 1/1/09: Scoping plan of reduction strategies**
- 1/1/10: Regulations to implement early  
action items**
- 1/1/11: Regulations to implement  
scoping plan**



# Magnitude of the Challenge

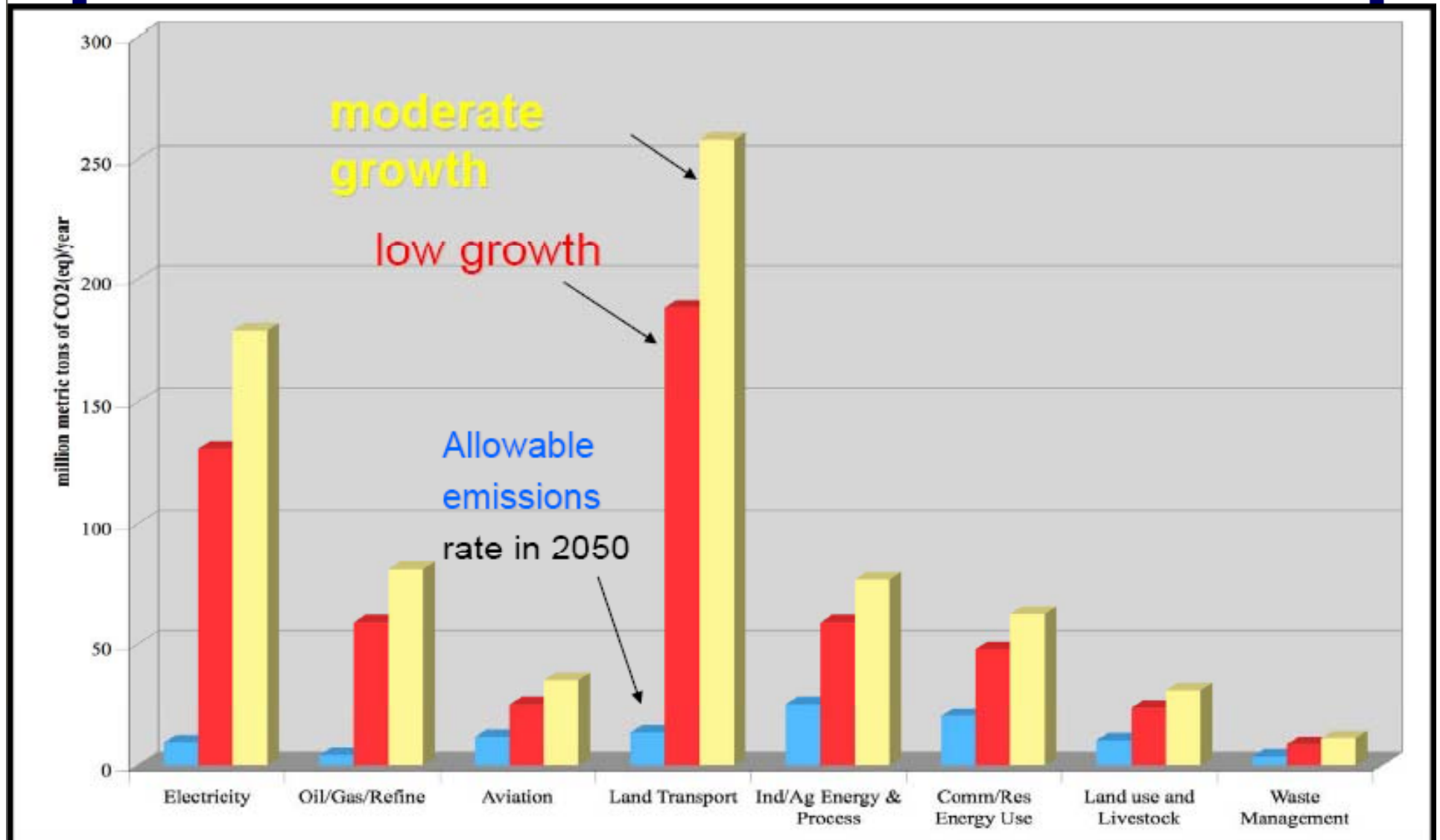
CA GHG Emissions Inventory





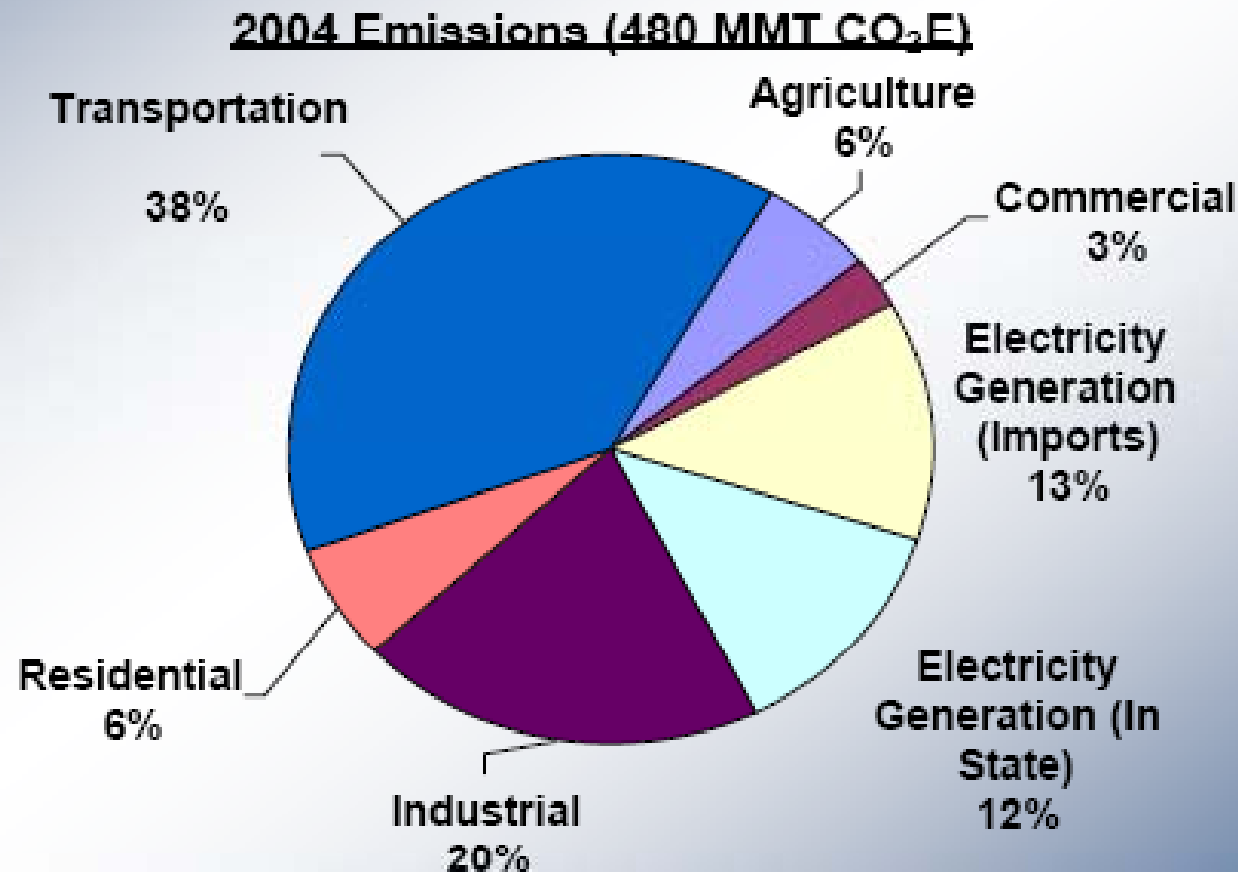
# California Energy Commission

## Reductions Needed to Reach 2050 Targets

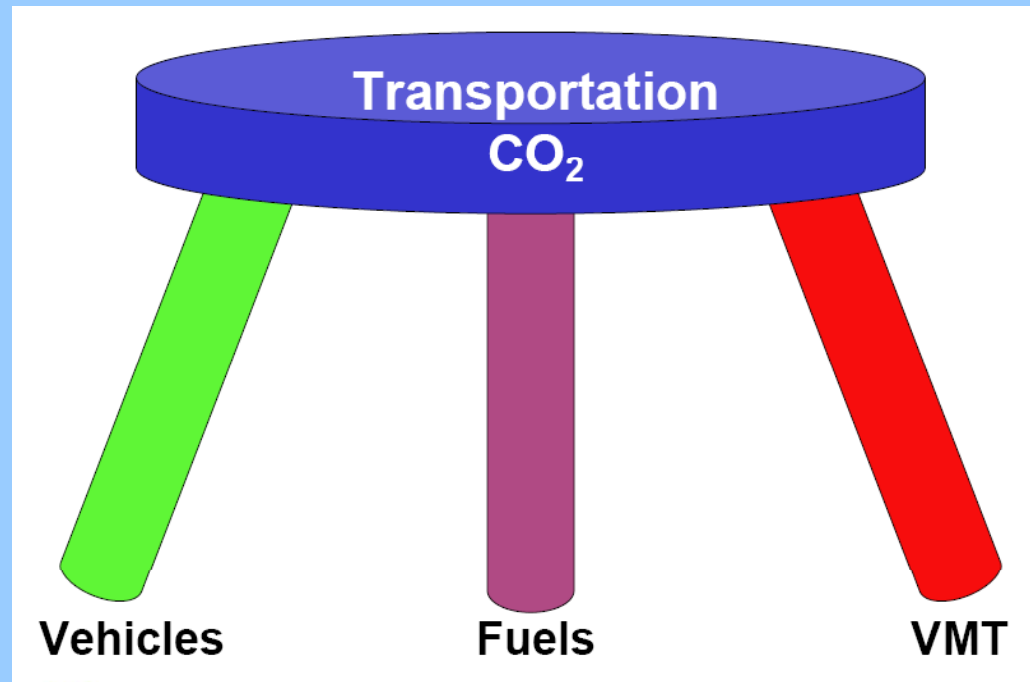




# Transportation largest source of GHG's in California



# The Three Legs of Transportation Reductions



# Strategies for Reducing Transportation GHGs

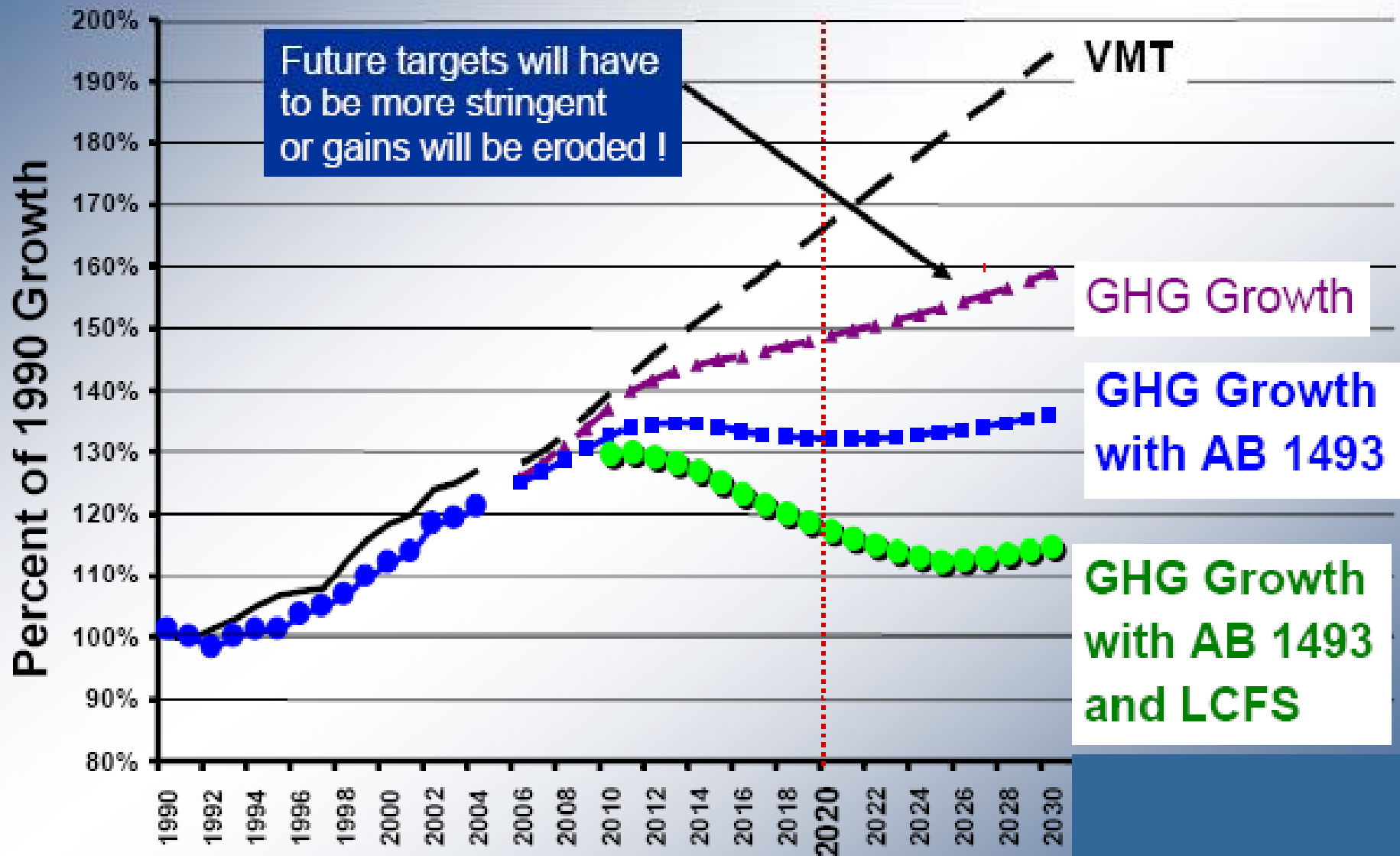
$$\text{Transp. GHG} = F \left( \frac{\text{GHG}}{\text{Mile}}, \frac{\text{GHG}}{\text{Gallon}}, \text{VMT} \right)$$

**Vehicle Technology**      **Fuels**      **Vehicle Use**

**AB 1493 (LDV) Smartway, other (HDV)**      **Low-Carbon Fuel Standard**      **Transp. & Land Use Strategies**



# Large Effort Required in Each Area



# Approval of the California Waiver ?

**Clean Air Act Section 209 – State Standards, EPA shall grant a waiver unless it finds that California:**

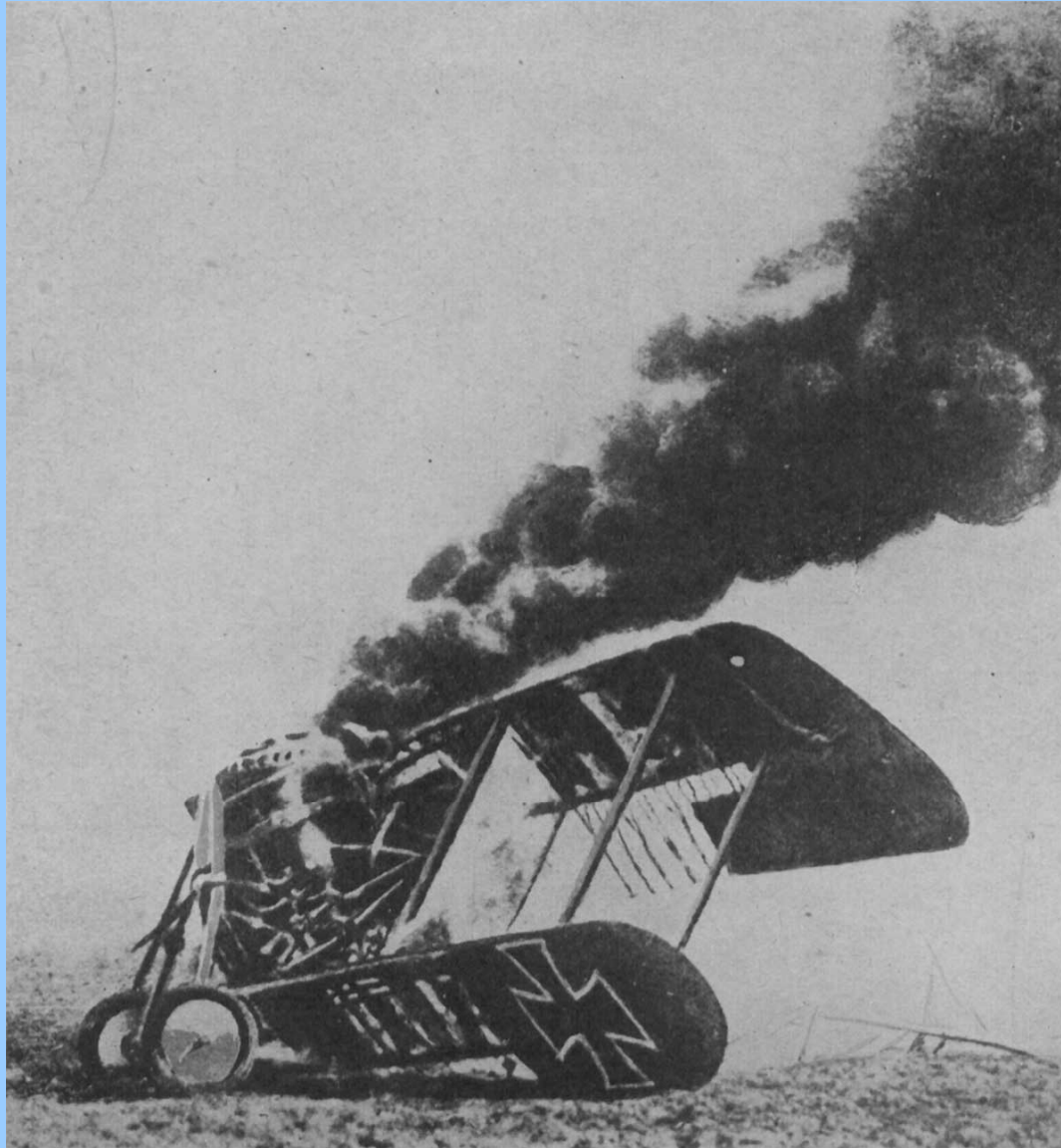
- **Was arbitrary and capricious in its finding that its standards are in the aggregate at least as protective of public health and welfare as applicable federal standards;**

- **Does not need such standards to meet compelling and extraordinary conditions; or**

- **Has proposed standards not consistent with Section 202(a) of the Clean Air Act.**



# California Waiver Denied



# California Waiver Denied

**Announcing the denial, EPA administrator Johnson said the energy bill signed into law by the president earlier this week would be sufficient to curb greenhouse gases from cars because it mandates a 35 mile per gallon fuel efficiency standard for cars and light trucks across the country by 2020.**

# Status of Regs/Endangerment and the California Waiver

**"EPA has determined that a unified federal standard of 35 miles per gallon will deliver significant reductions in greenhouse gas emissions from cars and trucks in all 50 states, which would be more effective than a partial state-by-state approach of 33.8 miles per gallon."**

## However.....

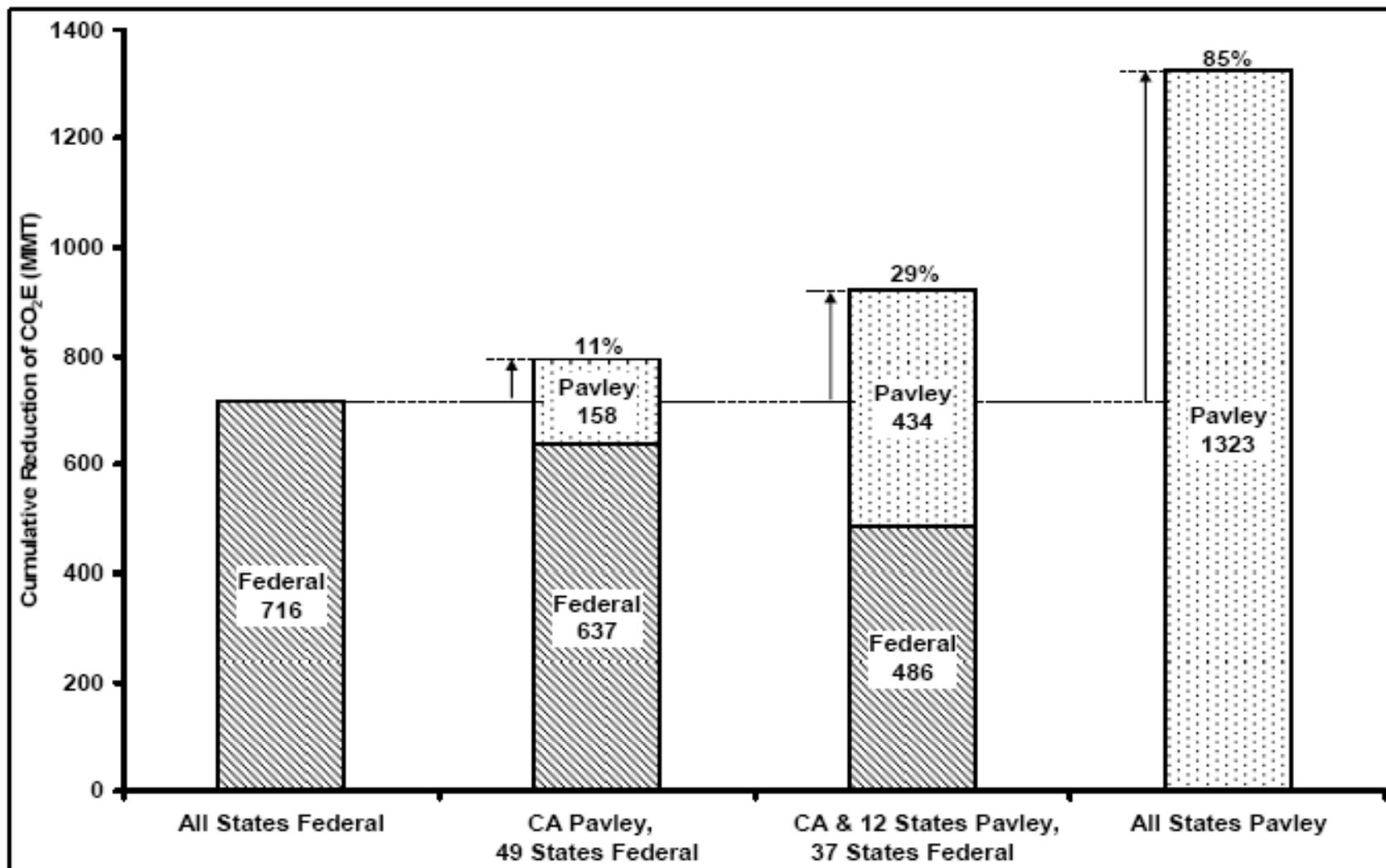
- California clean car standards start two years sooner
- fully phased in four years sooner.
- 30 percent drop in greenhouse gas emissions on new vehicles by 2016.

**COMPARISON OF GREENHOUSE GAS REDUCTIONS  
FOR THE UNITED STATES AND CANADA  
UNDER  
U.S. CAFE STANDARDS AND CALIFORNIA AIR  
RESOURCES BOARD GREENHOUSE GAS  
REGULATIONS**



**CALIFORNIA AIR RESOURCES BOARD  
AN ENHANCED TECHNICAL ASSESSMENT  
February 25, 2008**

Figure ES-2. Comparison of Nationwide Cumulative GHG Benefits Achieved by Pavley Regulation and New Federal Fuel Economy Standards by 2020 under Different Scenarios



[http://www.arb.ca.gov/cc/ccms/reports/pavleycafe\\_reportfeb25\\_08.pdf](http://www.arb.ca.gov/cc/ccms/reports/pavleycafe_reportfeb25_08.pdf)



# Status of Regs/Endangerment and the California Waiver

No.

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**UNITED STATES COURT OF APPEALS  
FOR THE NINTH CIRCUIT**

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STATE OF CALIFORNIA  
by and through ARNOLD SCHWARZENEGGER, GOVERNOR OF THE STATE OF  
CALIFORNIA, the CALIFORNIA AIR RESOURCES BOARD,  
and EDMUND G. BROWN JR., ATTORNEY GENERAL OF THE STATE OF CALIFORNIA,

Petitioner,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,

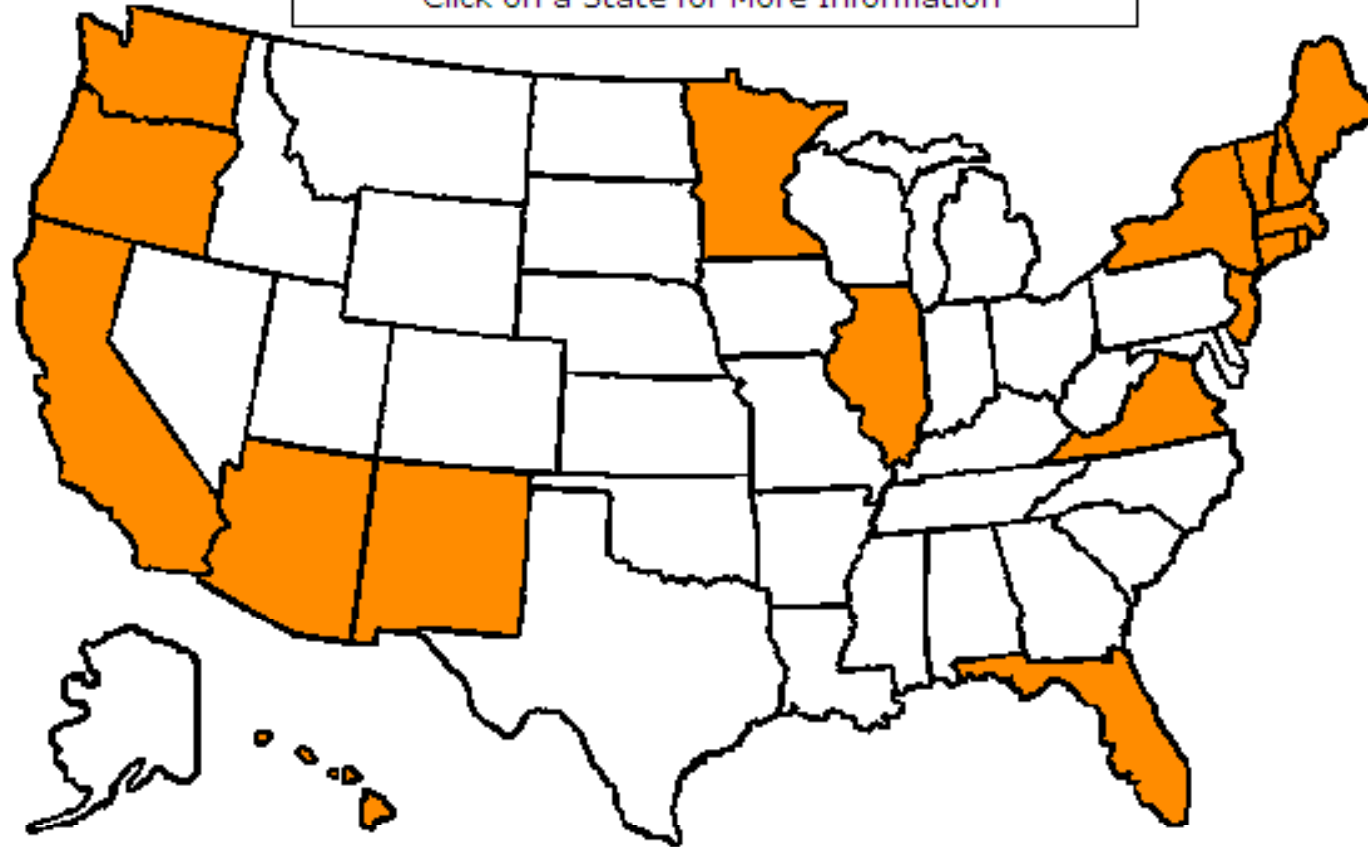
Respondent.

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**January 2, 2008**

# Greenhouse Gas Emissions Targets

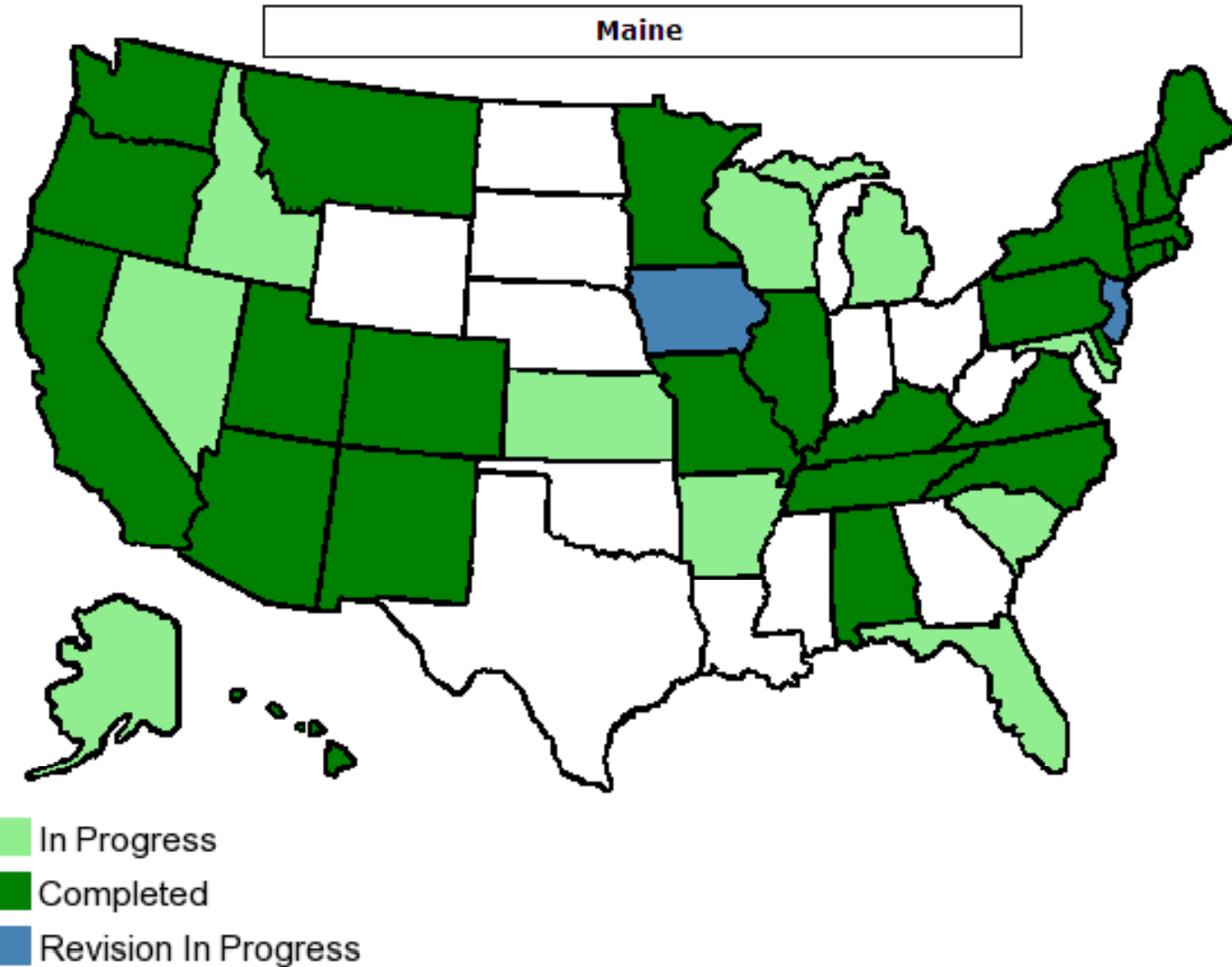
Click on a State for More Information



States with GHG Emissions Targets

A greenhouse gas emissions target refers to the emission reduction levels that states set out to achieve by a specified time. For example, a state may set a target of reducing emissions to 1990 levels by 2020, and to 50 percent below 1990 levels by 2050.

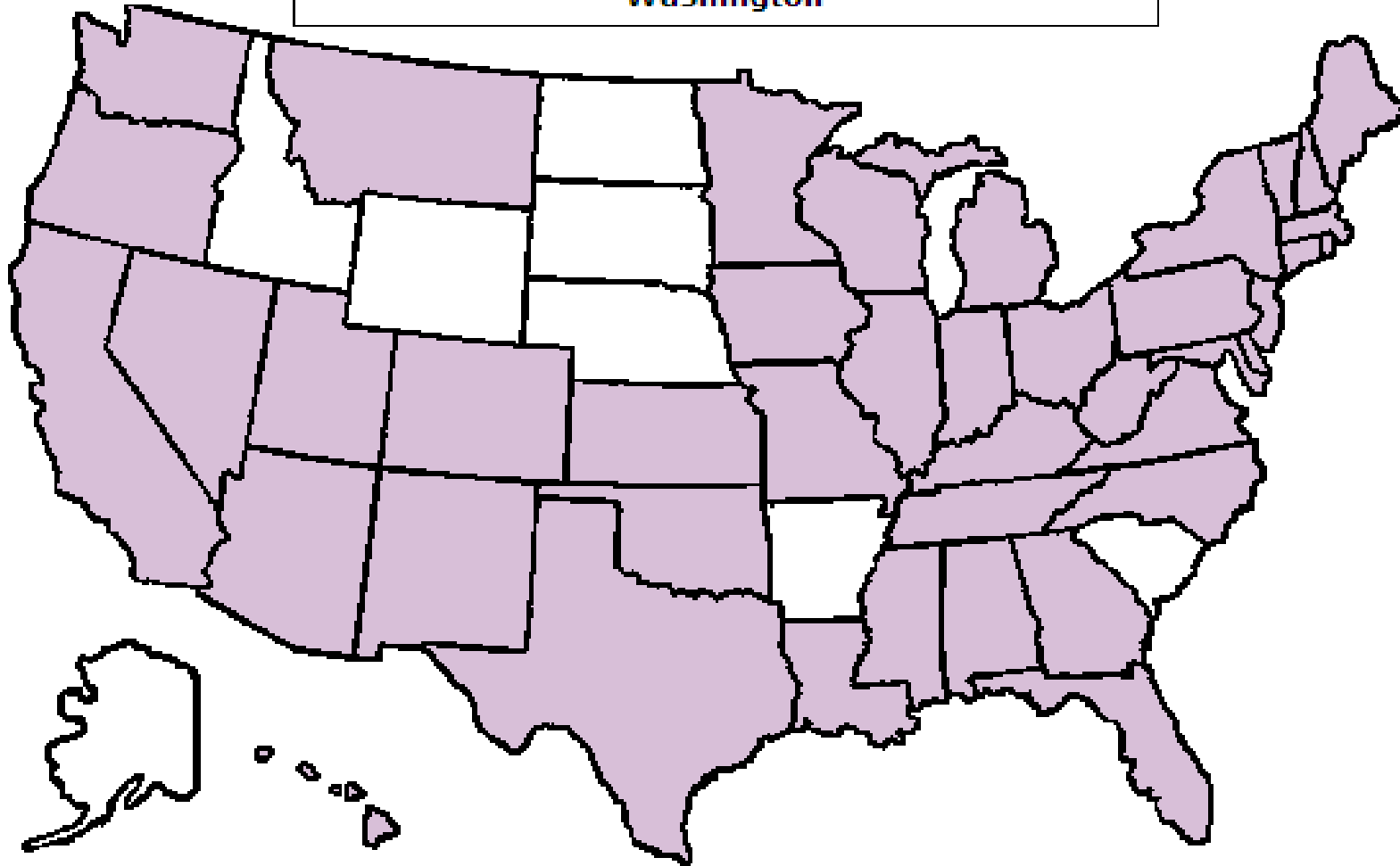
# Climate Action Plans



[Read examples of climate action plan legislation.](#)

# Greenhouse Gas Inventories

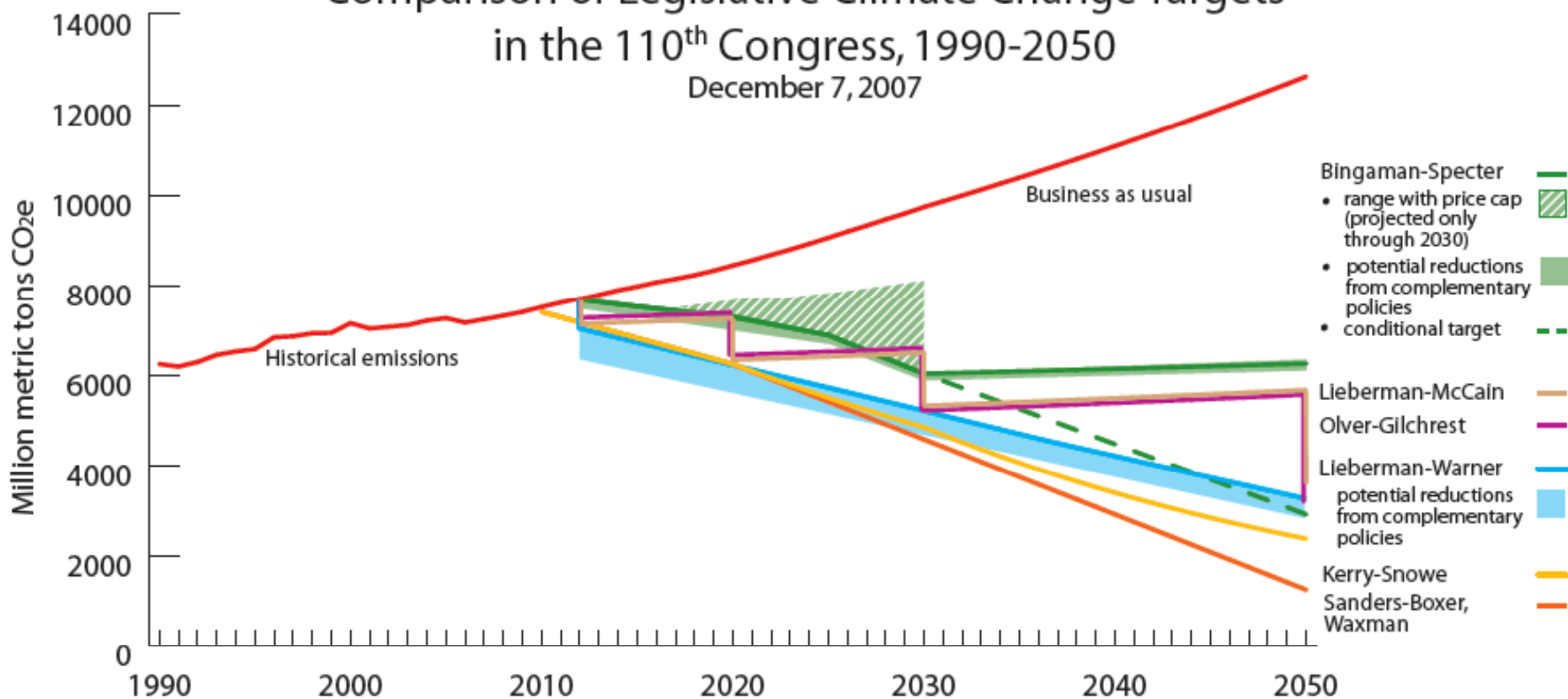
Washington




States with Greenhouse Gas Inventories

## Comparison of Legislative Climate Change Targets in the 110<sup>th</sup> Congress, 1990-2050

December 7, 2007



 WORLD RESOURCES INSTITUTE

For a full discussion of underlying methodology, assumptions and references, please see <http://www.wri.org/usclimatetargets>. WRI does not endorse any of these bills. This analysis is intended to fairly and accurately compare explicit carbon caps in Congressional climate proposals and uses underlying data that may differ from other analyses. Data post-2030 may be derived from extrapolation of EIA projections.



# **OAR Priorities & Outlook**

**Environmental Council of States  
Air Committee**

**Robert J. Meyers  
Principal Deputy Assistant Administrator  
U.S. EPA, Office of Air and Radiation  
April 15, 2008**

## Mass v. EPA: Stationary Source Actions

- New Source Performance Standards (NSPS) reviews under court deadline or in response to court remand
  - Refineries (*April 30, 2008 Final Rule*)
  - Utility & industrial boilers (*Remanded September 24, 2007*)
  - Portland cement (*Proposal due May 31, 2008, Final Rule May 31, 2009*)
  - Other proposals (e.g., coal preparation plants, *proposal April 16, 2008, Final Rule April 16, 2009*)
- Several PSD permits pending or on appeal before the EAB (e.g., Deseret Bonanza, Desert Rock, White Pine)



## Pending Clean Air Act Actions Related to GHGs

- Response to *Massachusetts* decision: Remand of ICTA petition for motor vehicle GHG standards under section 202 of the Clean Air Act (CAA)
- Other mobile source actions:
  - RFS revisions per EISA – 36 billion gallons per year of renewable fuel by 2022
    - CAA Section 211(o)
  - Petitions for rulemaking to set standards for:
    - Aircraft – two under CAA Section 231
    - Ships – CAA Sections 213(a)(4) and 211 (fuels)
    - Other non-road engines – CAA 213



# GHG ANPR

- Administrator Johnson's March 28 letter to Congress announcing decision to issue an ANPR by late spring 2008
- EPA is obligated to respond to the Supreme Court's decision in *Massachusetts v. EPA*
- The Energy Independence and Security Act (EISA) changed the policy, but not the legal or scientific, context for that response.
  - DOT received new authority and mandate from Congress to tighten CAFE standards in coordination with EPA. EPA will consider that change in evaluating Clean Air Act (CAA) motor vehicle standards
  - EPA received new authority and mandate from Congress to strengthen the existing CAA renewable fuels standard (RFS).



## ANPR: Why?

- We also need to consider what additional CAA regulation would or could follow from CAA vehicle standards.
  - In carrying out the mandate of the Supreme Court, it is critically important for EPA to make sense of and manage the broader CAA implications of regulating GHGs under the Act.
- The ANPR is the best single vehicle for presenting:
  - our work to date
  - the numerous CAA issues arising from action under the Act
  - approaches to addressing various issues
  - an opportunity for public comment and input on CAA strategies
  - information to Congress as it develops climate change legislation



# Upcoming Actions

- ANPR (Advanced Notice of Proposed Rulemaking) June 08
- California Waiver Litigation
- Action in Congress

**ALL THESE WILL BE ESSENTIALLY 2009  
ACTIONS**

**MEANWHILE BACK AT THE FARM**



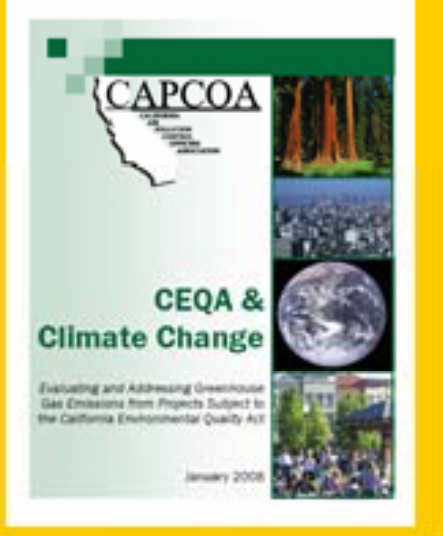


**ANNOUNCEMENT:**

The CAPCOA White Paper, "CEQA and Climate Change," is now available for viewing and downloading.

Please see cover letter (pdf) [click here](#).

For the full document (pdf, 2.6 mb) [click here](#).



[www.capcoa.org/climatechange](http://www.capcoa.org/climatechange)

<http://www.arb.ca.gov/cc/cc.htm>

[www.climatechange.ca.gov](http://www.climatechange.ca.gov)

How about you spend **LESS** time studying how **MY** generation destroyed the environment and **MORE** time figuring out a magical solution?





# The Fat-tail of Climate Risk

