

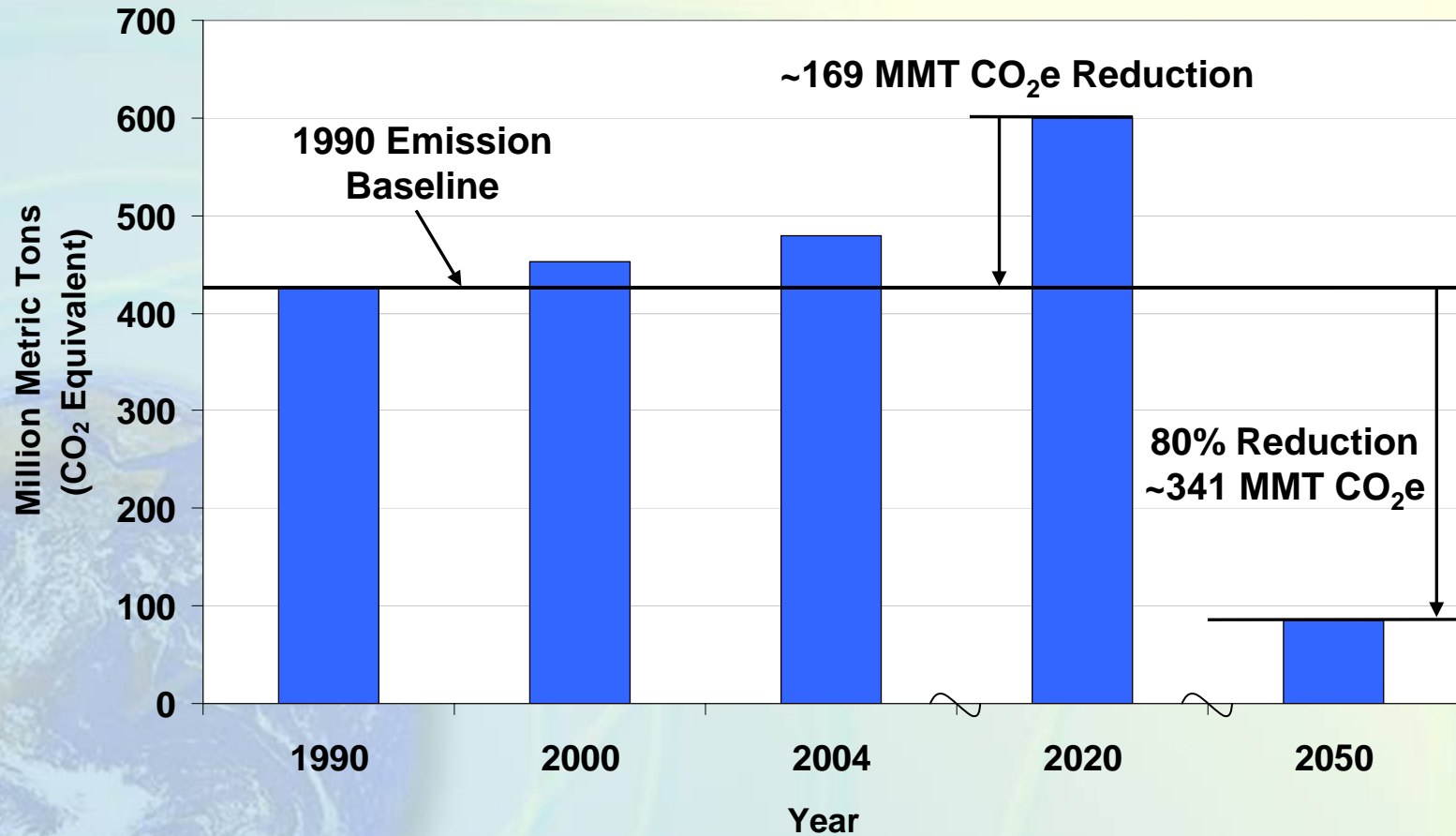
Climate Change

AB 32 and Scoping Plan Implementation

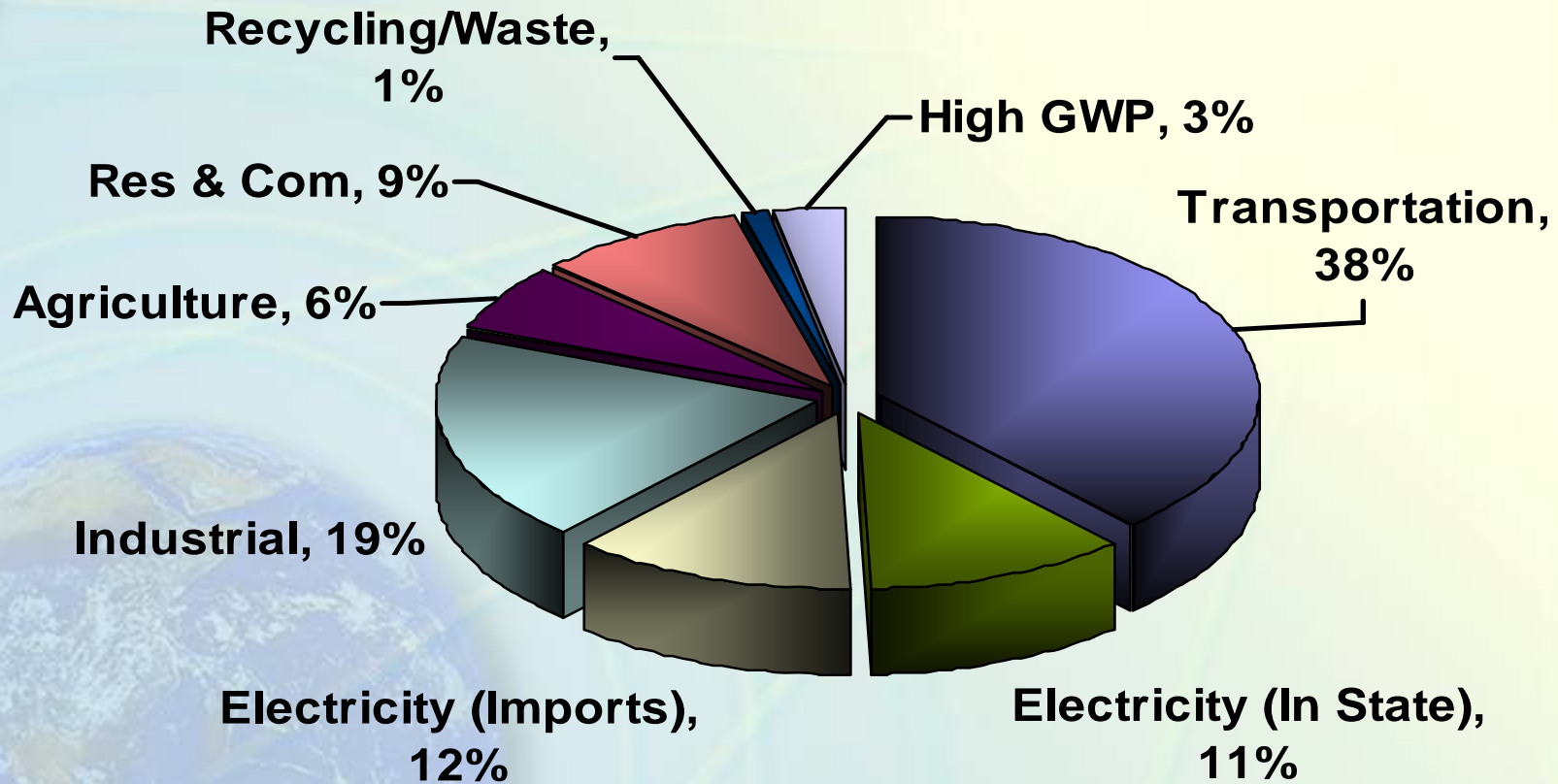
California Air Resources Board

The Challenge

ARB Emissions Inventory



2002-2004 GHG Emissions (469 MMTCO₂E)



AB 32 and the Scoping Plan

- AB 32 signed by Governor Sept. 27, 2006
- Directed ARB to develop Scoping Plan
- Board Adopted Plan Dec. 12, 2008
- Plan recommends mix of strategies combining market mechanisms, other regulations, voluntary measures, energy efficiency, and fees
- Scoping Plan goals:
 - By 2020 reduce GHGs back to 1990 levels
 - On track to reduce 80% from 1990 level by 2050

Implementation of the Plan

- 2009–2010: adopt regulations
- ARB uses a formal structure to elicit public input in the regulatory process
 - Regulatory development will follow public process
 - Extensive stakeholder outreach and involvement
 - Close and ongoing coordination with Cal/EPA, CEC, CPUC, and other state agencies
- Regulations in effect 1/1/2012

Key Requirements for Plan's Regulations

- Use open public process for new regulations
- Minimize costs/maximize benefits
- Protect low-income communities
- Compliment smog & air toxics programs
- Minimize leakage and administrative burden
- Other requirements for market-based compliance
 - Consider direct, indirect and cumulative emissions including localized impacts

Adopted To Date

- Pavley AB 1493 automobile rule: Sept. 04
- Ship electrification in ports: Dec. 07
- Port and rail yard cargo trucks: Dec. 07
- High GWP in consumer products: June, 08
- Heavy duty truck efficiency: Dec. 08
- Motor vehicle DIY refrigerant cans: Jan. 09
- SB 375 Regional Targets Advisory Committee: Jan. 09
- High GWP Reductions : Feb. 09
- Auto tire inflation: March 09
- Low carbon fuel standard: April 09

Pending Rules

- Landfill Methane Capture: June 25, 2009
- Cool Cars: June 25, 2009
- Fees: June 25, 2009

ARB Measures Scheduled 2009 - 2010

- Total of 20 measures scheduled for 2009
- Total of 13 measures scheduled for 2010
- Cap and Trade system will be adopted late 2010
- Schedules can change
- Some measures may be added or dropped

Measures By Other Agencies

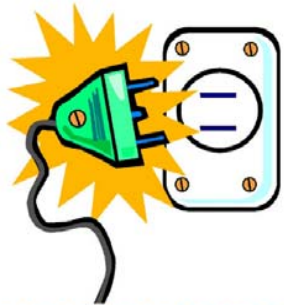
- CEC and PUC: Eight measures
- Waste Management Board: Five
- Water Board & Water Resources: Four
- Forestry & Cal Fire: Two
- Dept. Govt. Services: One
- High Speed Rail: One

Measures Implementation Spread Sheet

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

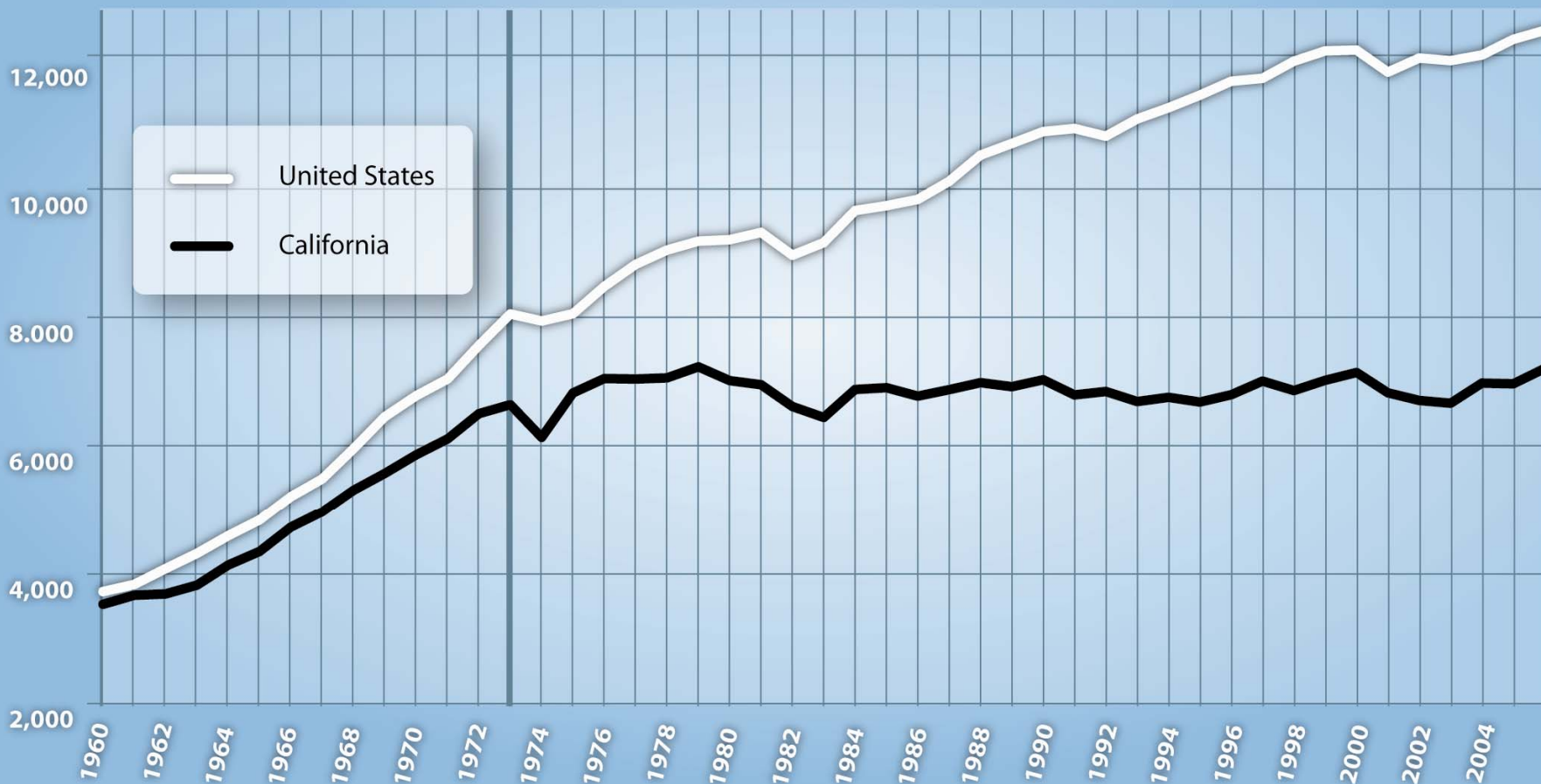
Transform Energy Production and Use

- Cutting energy use saves money while creating fewer GHG emissions
- Plan includes aggressive energy efficiency goals and increases renewable energy
- Meeting the goals in the Scoping Plan will require
 - Expanded utility-based energy efficiency programs
 - More stringent building and appliance standards
 - Green buildings and waste reduction
 - Innovative strategies that go beyond traditional approaches
- Plan relies on expanded efforts by the CEC and CPUC



Per Capita Electricity Use in California and the US

(Per Capita Electricity Sales in Kilowatt Hours)



Energy Efficiency & Conservation Block Grants

- DOE Federal Stimulus Funding
- \$351 Million to CA cities and counties
- Other funding available
- Administered by the California Energy Commission
- www.energy.gov/recovery/
- listenergia@listserver.energy.ca.gov

State Government

- State must set an example
- Reduce “carbon footprint” by 30% from expected 2020 levels
 - State Green Buildings Initiative
 - State motor vehicle fleet clean up
 - Procurement practices
 - Commute alternatives for State employees
- Evaluate “carbon shadow”
 - Climate change impact of government policies and decisions

Working with Districts

- New measures that might impact criteria or toxic pollutants – include district input to avoid negative impacts
- Possible working group for district input on language and permitting requirements
- Review each regulation for specific needs

Small Business

- Climate change program presents opportunities and challenges for small business
- ARB participating with Chambers, economic development organizations, businesses to understand how to help small businesses transition to a low carbon future
- Small Business Tool Kit – April 2009

Tracking Progress

- ARB to track Scoping Plan activities with assistance of Climate Action Team
- Insure consistency among State agencies
- Prevent double counting of reductions
- Update Board twice a year

WHAT CAN YOU DO?



- Reduce Water Usage
- More Efficient Lighting
- More Efficient Heating & Air Conditioning
- Computers & TV really OFF!
- Landscaping and Sprinkler Systems
- Trucking Fleets & Other Vehicles
- Energy Efficient Buildings
- Solar Power

Individual Citizen's Example at a Los Angeles home

- New energy efficient heating-air conditioning
- Energy efficient florescent light bulbs
- Computers and televisions to “on-off” switches
- Cold water laundry
- Solar clothes dryer (AKA clothes line)
- Join SCE Summer Discount Program
- 2008 electric bills for 1700 square foot home:
 - June: **\$10.12** Aug: **\$6.63**
 - July: **\$6.05** Sept: **\$10.50**

Inventory and Reporting

*General Stationary Combustion sources emitting $\geq 25,000$
MT CO₂/yr*

*Electric Power Plants & Co-Gen plants not controlled by
larger facilities 2,500 CO₂/yr*

Start tracking in 2008 – report 2008 results in 2009

Facility Examples

- Natural gas transmission
- Industrial gases
- Paperboard manufacture
- Colleges and universities
- Electricity generation
- Oil production
- Food processing
- Steel foundries
- Mineral processes
- Glass containers
- Malt beverages
- Cement manufacturing

The Next Chapters

Begin Adopting Measures

Conclude Adoption of Measures

Begin Enforcing Measures

Return to 1990 Emissions

2009

2010

2011

2012

through

2020

Work Toward 2050

Scoping Plan Adopted 12/11/08

For Additional Information

- ARB Climate Change Web Site:
www.arb.ca.gov/cc/cc.htm
- *(To stay informed, sign up for list serve)*
- California Climate Change Portal:
www.climatechange.ca.gov
- ARB Office of Climate Change contact:
Richard Varenchik at (626) 575-6730
[**rvarench@arb.ca.gov**](mailto:rvarench@arb.ca.gov)