

Climate Change

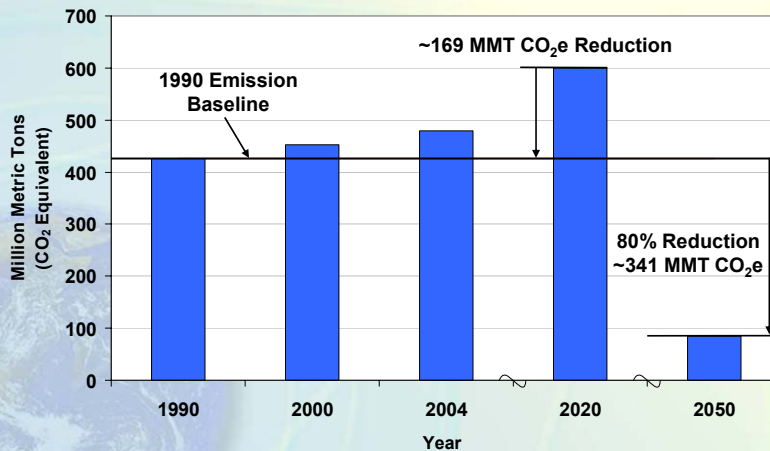
AB 32 and Scoping Plan Implementation

California Air Resources Board

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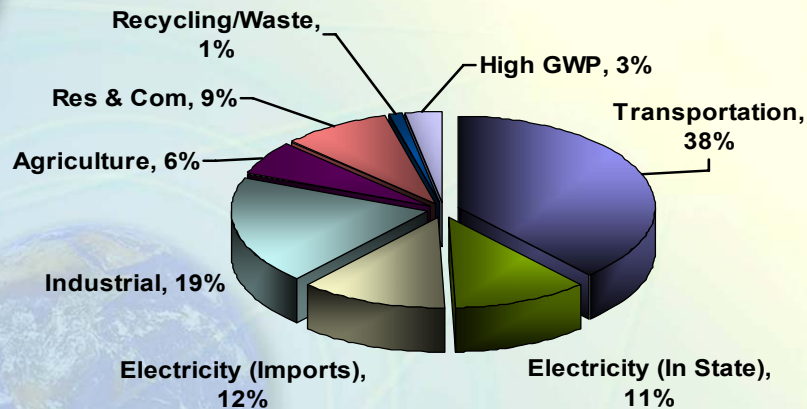
The Challenge

ARB Emissions Inventory



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2002-2004 GHG Emissions (469 MMTCO₂E)



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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

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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

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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

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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

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Pending Rules

- Low Carbon Fuel Standard: April 23, 2009
- Landfill Methane Capture: June 25, 2009
- Cool Cars: June 25, 2009
- Fees: June 25, 2009

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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

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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

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Measures Implementation Spread Sheet

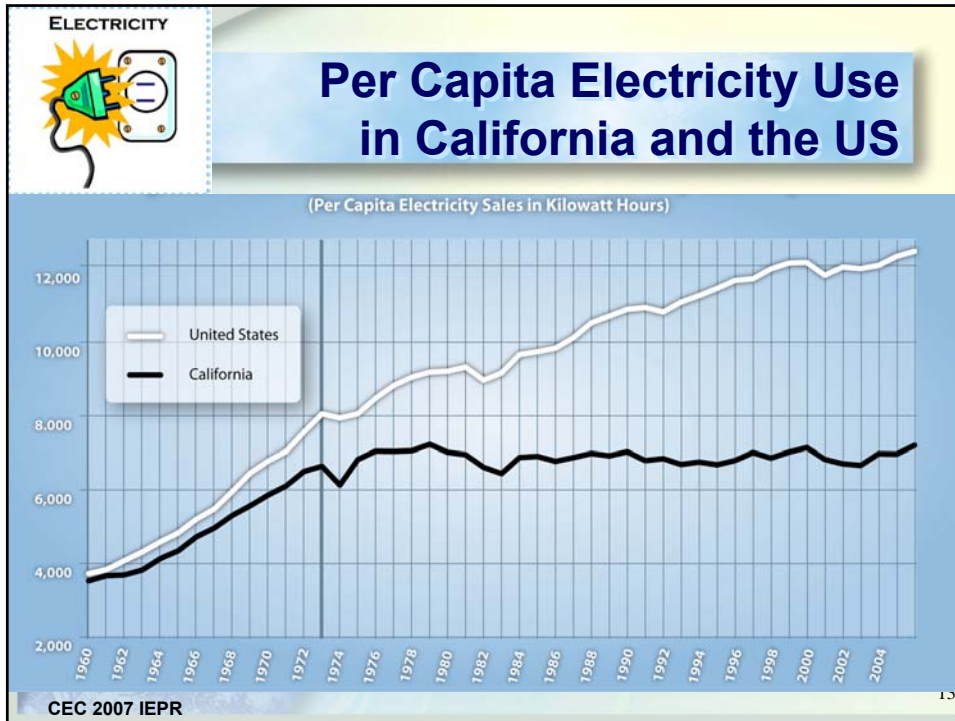
- <http://www.arb.ca.gov/cc/implementation/implementation.htm>

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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

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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
- Sacramento workshops April 24 projects funding and April 27 fuels and vehicles programs.

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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

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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

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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

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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

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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**

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Inventory and Reporting

Inventory: 427 million metric tons

- Estimates greenhouse gas emissions from all major sectors of the California economy
- Tracks statewide emissions of six “Kyoto gases” (CO₂, CH₄, N₂O, PFCs, HFCs and SF₆)
- Includes estimate of statewide sinks (carbon sequestration)
- Developed from statewide perspective
 - Uses aggregated, “top-down” sector data (typically compiled by state and federal agencies) to provide a broad view of State’s total emissions

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California's Greenhouse Gas Inventory

- Emission estimates currently available for 1990 through 2004
- 1990 statewide emissions estimate used to establish 1990 level (California's 2020 emissions target) per AB 32
- Additional years beyond 2004 to be released soon

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California's Greenhouse Gas Inventory

- Calculation methods consistent with international and U.S. EPA guidance
- California-specific information used wherever possible
- Data, methods, and additional information available at:
<http://www.arb.ca.gov/cc/inventory/inventory.htm>

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Reporting

(only if $\geq 25,000$ metric tonnes/yr CO_2 from combustion)

- *General Stationary Combustion sources*

Emitting $\geq 25,000$ MT CO_2 /yr

Approximately 1,000 in the state

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Who Must Report?

General Stationary Combustion sources emitting $\geq 25,000$ MT CO_2 /yr

Electric Power Plants & Co-Gen plants not controlled by larger facilities 2,500 CO_2 /yr

Start tracking in 2008 – report 2008 results in 2009

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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

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Reporting Tool

- Shares software with tracking tools of U.S. EPA and The Climate Registry
- Will ease transitions to regional and national reporting programs
- Training tool available on web site
- No 2009 enforcement of 2008 emissions until after June 1

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Changed 2009 Reporting Deadlines From April 1 to after June 1

- To give more time to become familiar with the reporting tool
- Electricity Generation and Co-Gen Plants not controlled by larger facilities and entities
- General Stationary Combustion facilities outside the oil and gas sector
- Patrick Gaffney 916 322-7303 ghgreport@arb.ca.gov

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Finding Inventory and Reporting Page

California Air Resources Board ↘

Popular Pages ↘

Climate Change ↘

Activities ↘

Mandatory Reporting

Public Workshops and Meetings

<http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep.htm>

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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