Brief History of California’s Climate Activities

- Energy Efficiency Portfolio (decoupled)
- Greenhouse Gas Emissions Inventory (1990)
- California Climate Action Registry (2000)
- Emission Targets in Executive Order (2005)
Brief History of California’s Climate Activities (Continued)

- Western Climate Initiative (2007-present)
- Scoping Plan (2008-present)
- Regional Transportation Targets – SB 375 (2008-present)
- Renewable Portfolio Standard (2010, 2011)
Brief History of California’s Climate Activities (Continued)

- Pavley clean car standards
- Low carbon fuel standard
- Ship electrification
- Port trucks
- Consumer products
- Landfill methane control
- Industrial audits
- Refrigerant Mgt
- 33% renewable electricity standard
- Regional transportation targets
- Efficient trucks
- Car air conditioners
- Sulfur hexafluoride (including electric sector)
- Semiconductor manufacturing
- Tire inflation
What is at Stake for California?

- Water Resources
- Public Health and Air Quality
- Coastline and Ocean Resources
- Agriculture and Forestry
- Hydroelectric Power
- Wildfires

- Impacts of Climate Change on California’s Public Health, Infrastructure and Natural Resources
  (http://www.climatechange.ca.gov/publications/cat/index.html)
Balance of Approaches to Mitigation

- **Near Term:**
  - 2020 emissions target: 1990 levels
  - Focus on “traditional approaches” to emission reductions
  - Initiate emissions pricing

- **Long Term:**
  - Emissions reductions to avoid dangerous anthropogenic interference with the climate system
  - Maintain emissions pricing
Cap and Trade Design Elements

- High-quality emissions data
- Define an emissions limit and establish a budget of “emission allowances”
- Electricity sector: Uniform treatment of in-state and imported generation
- Limited use of high-quality offsets
- Open and fair auctions
- Effective market oversight
- Western Climate Initiative
Covered Sources

- **2013-2014**
  - In-State Electricity Generation Facilities (>25,000 MT CO$_2$e/year) and Imported Electricity
  - Large Industrial Facilities (>25,000 MT CO$_2$e/year)

- **2015-2020**
  - Adds ‘upstream’ treatment of fuel combustion where fuel enters into commerce covering
    - Small industrial fuel use (for facilities < 25,000 MT CO$_2$e/year)
    - Residential and commercial fuel use
    - Transportation fuel use
Recent Emissions in California

Emissions by sector, 2008

- Transportation: 37%
- Electric Power: 24%
- Industrial: 19%
- Commercial and Residential: 9%
- Agriculture: 6%
- High GWP: 3%
- Recycling and Waste: 2%
Allowance Budget and Allocation

* Allowance budget revised to start in 2013
Auction vs. Free Allocation

* Allowance budget revised to start in 2013
The “Carbon Market”

- Administrative allocation
- Auction
- Holdings recorded in the tracking system
- Trading of emission allowances and offsets: private parties and exchanges
- Creation and trading of “derivative products”
Benefits of a Regional or National Approach to Cap and Trade

- Greater emissions benefit than a single-state approach to a global problem
- Harmonization across boundaries reduces potential for emissions “leakage” and supports jobs retention
- Broader carbon market increases opportunities for lower-cost reductions
- Increased leverage for national and international climate action
For Additional Information

- ARB Climate Change Web Site: www.arb.ca.gov/cc/cc.htm
- California Climate Change Portal: www.climatechange.ca.gov