



# *AB 32 and Cap and Trade*

**ECONOMIC INCENTIVES WORKSHOP**

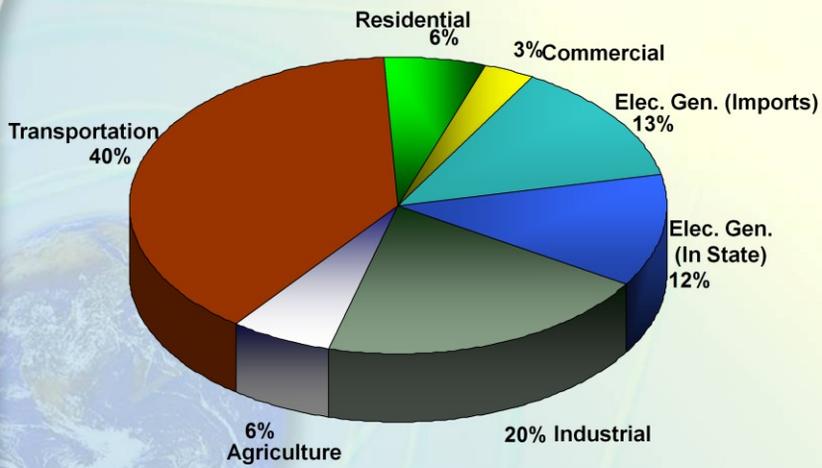
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California Air Resources Board (ARB)

## AB 32 and Cap-and-Trade

- AB 32 requires ARB to adopt a statewide limit for 2020 emissions equal to 1990 emission levels
  - Board approved a target of 427 MMTCO<sub>2</sub>e for 2020
- Cap-and-trade program is a subset of the statewide target
  - Scoping Plan estimate for 2020 cap is 365 MMT CO<sub>2</sub>e

# 2004 GHG Emissions (480 MMTCO<sub>2</sub>E)



CARB 2007

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# 2004 GHG EMISSIONS (480 MMTCO<sub>2</sub>E)

To comply with accessibility requirements, this slide has been added to the original presentation to describe the graphic on the previous slide.

| Sector                | Percent of Total |
|-----------------------|------------------|
| Transportation        | 40               |
| Industrial            | 20               |
| Elec. Gen. (Imports)  | 13               |
| Elec. Gen. (In State) | 12               |
| Residential           | 6                |
| Agricultural          | 6                |
| Commercial            | 3                |

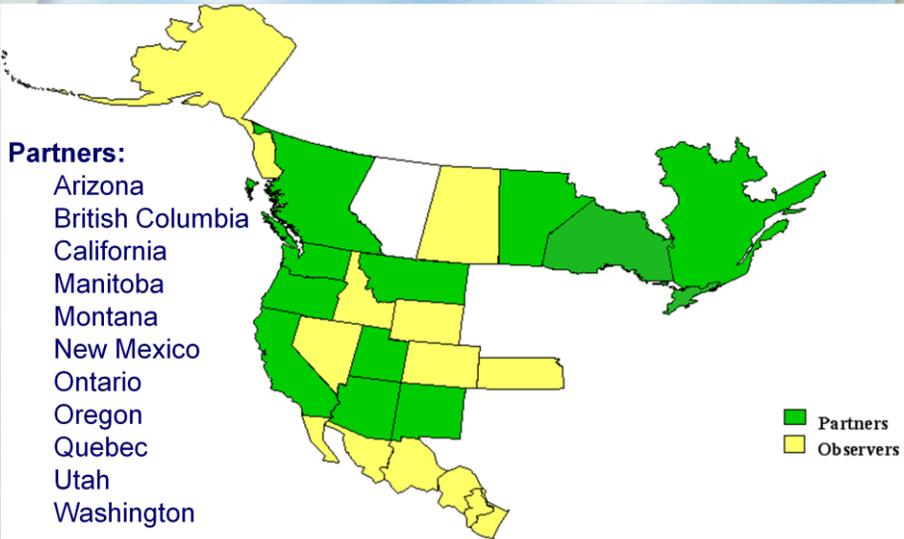
## Economic Incentive Approaches in AB 32

- Market-Based Mechanisms
  - Cap & trade
  - Offsets
  - Incentive programs
  - Set-asides
  - Voluntary Actions

## **Scoping Plan Directive for Cap-and-Trade**

- Implement a broad-based California cap-and-trade program to provide a fixed limit on emissions
- Link to other Western Climate Initiative Partner programs

# Western Climate Initiative



Western States currently include California, Washington, Oregon, Utah, Montana, New Mexico, and Arizona. British Columbia, Manitoba, Ontario, and Quebec round out the Canadian provinces. The goal of the Western Climate Initiative (WCI) is to establish a regional cap-and-trade program to reduce greenhouse gas emissions collectively among the members; this translates to a 15 percent below 2005 levels by 2020. Similar to the California target, the regional program would cover sources that encompass nearly 90 percent of the region's emissions.

The aggregate regional cap for the cap-and-trade program will equal the sum of the WCI Partner jurisdictions allowance budgets.

## How is the Goal Met Under Cap-and-Trade?



- New and existing standards and policies affecting capped sources achieve most of the needed reductions
  - Renewables Portfolio Standard
  - Energy Efficiency
  - Low Carbon Fuel Standard and Pavley
  - Turnover of aging equipment
- Some offset credits from uncapped projects
- Cap forces additional reductions, with market providing flexibility for sources to seek the most cost-effective reductions

## Capped Sources

- 2012-2014
  - In-State Electricity Generation Facilities (>25,000 MT CO<sub>2</sub>e/year) and Imported Electricity
  - Large Industrial Facilities (>25,000 MT CO<sub>2</sub>e/year)
- 2015-2020
  - Adds 'upstream' treatment of fuel combustion where fuel enters into commerce covering
    - Small industrial fuel use (for facilities  $\leq$  25,000 MT CO<sub>2</sub>e/year)
    - Residential and commercial fuel use
    - Transportation fuel use



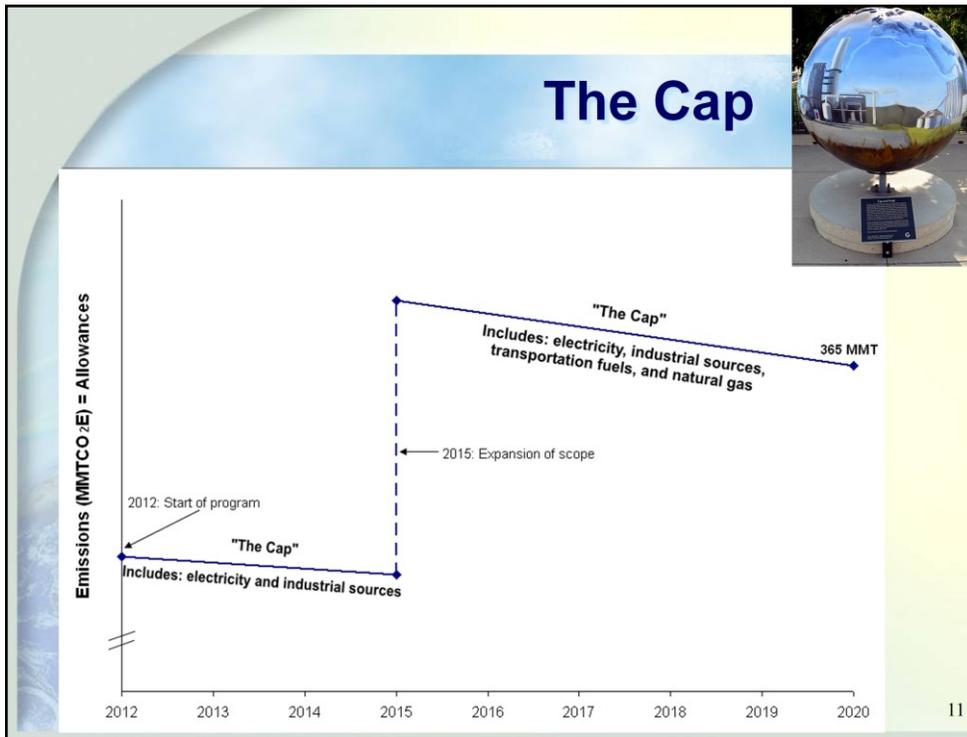
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Large Point Sources

Upstream coverage of fuel usage in small industrial, commercial, residential, and transportation applications

## Cap-and-Trade Key elements

- Scope and threshold
  - Who and how large
- Setting the cap
  - How many allowances over time
- Distribution of allowances
  - Free distribution, auction, or hybrid



We will set the cap in 2012 using a best estimate of emissions from electricity generation and large industrial sources.

The 2015 level will be set on the best estimate of emissions including the upstream coverage of fuel use not burned at large industrial or power facilities.

The 2020 target will be set based on achieving our goal of returning to 1990 level of emissions. The preliminary estimate of California's allowance budget in 2020 is 365 MMT CO<sub>2</sub>e.

## Cap-and-Trade Key elements (2)

- Offsets
  - Reductions from uncapped sources beyond that required by regulation
- Reporting, tracking, enforcement
  - Quantify and verify compliance
- Program equity
  - Fair use of revenues

## What is an Offset?

- In general, a GHG offset is a GHG emission reduction ...
  - beyond any reduction otherwise required by regulation or that otherwise would occur
  - that generates a credit that can be used to meet a regulatory compliance obligation or a voluntary commitment
  - that addresses emissions not included in a cap-and-trade program



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- This timeline gives an idea of where we are in the process.
- Scoping Plan adopted December 2008.
- Air Resources Board (ARB) has already started adopting and implementing many of the regulations and measures in the Proposed Scoping Plan, but by 2012, all of the programs must be launched. Budgeting for a one-year passage through the Office of Administrative Law, this means that regulations will be adopted in 2009 and 2010.
- Regulatory development will follow public process, with extensive stakeholder involvement and ongoing coordination with other state agencies.
- [And as with all regulatory programs, successful implementation and enforcement are the key to achieving environmental results. Therefore, we will continue monitoring implementation of the Plan. Our experience with past clean air plans has proven that we will need to be flexible, innovative and creative as some technologies surpass our expectations and others barely make it out of the starting gate.]
- [AB 32 recognizes that this feedback is critical, and requires ARB to revisit the plan every five years. **HOWEVER**, since we will be keeping a constant eye on progress and reporting back to our Board at least twice a year, **WE WILL BE ENGAGED IN A VIRTUALLY CONTINUAL FEEDBACK AND EVALUATION PROCESS.**]
- Return to 1990 emissions by 2020.
- 2020 is not the end. Continuing our progress toward the goal of an 80 percent emissions reduction by 2050 is necessary to stabilize climate.

## For Additional Information

- ARB Climate Change Web Site:  
[www.arb.ca.gov/cc/cc.htm](http://www.arb.ca.gov/cc/cc.htm)  
*(To stay informed, sign up for list serve)*
- California Climate Change Portal:  
[www.climatechange.ca.gov](http://www.climatechange.ca.gov)
- ARB Office of Climate Change contact:  
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