



# **Overview of the Greenhouse Gas Cap-and-Trade Program**

January 28, 2010  
California Air Resources Board

# Scoping Plan Cap-and-Trade Measure

- Broad-based California cap-and-trade program to provide a fixed limit on emissions
- Link to the Western Climate Initiative (WCI)
- Complement health-based air quality programs and environmental justice policies
- Consider effects of the program on the California economy and public health
- Establish a panel of experts to provide recommendations on cap-and-trade allocation strategies and economic issues

# Role of Cap-and-Trade Program in Scoping Plan

Recommended Reduction Measures	Reductions Counted Towards 2020 Target (MMTCO <sub>2</sub> E)
<b>ESTIMATED REDUCTIONS RESULTING FROM THE COMBINATION OF CAP-AND-TRADE PROGRAM AND COMPLEMENTARY MEASURES</b>	<b>146.7</b>
California Light-Duty Vehicle Greenhouse Gas Standards	31.7
Energy Efficiency	26.3
Renewables Portfolio Standard (33% by 2020)	21.3
Low Carbon Fuel Standard	15
Regional Transportation-Related GHG Targets	5
Vehicle Efficiency Measures	4.5
Goods Movement	3.7
Million Solar Roofs	2.1
Medium/Heavy Duty Vehicles	1.4
High Speed Rail	1.0
Industrial Measures (for sources covered under cap-and-trade program)	0.3
<i>Additional Reductions Necessary to Achieve the Cap</i>	<i>34.4</i>
<b>ESTIMATED REDUCTIONS FROM UNCAPPED SOURCES/SECTORS</b>	<b>27.3</b>
High Global Warming Potential Gas Measures	20.2
Sustainable Forests	5.0
Industrial Measures (for sources not covered under cap and trade program)	1.1
Recycling and Waste (landfill methane capture)	1.0
<b>TOTAL REDUCTIONS COUNTED TOWARDS 2020 TARGET</b>	<b>174</b>

# Public Process for Stakeholder Involvement

## 2009

- 21 public meetings on specific cap-and-trade program design elements
- Numerous stakeholder consultations
- Consideration of 100s of stakeholder comments
- Coordination with Western Climate Initiative
- Release of Preliminary Draft Regulation and public workshop

## 2010

- EAAC Recommendations released in January



# Continued Opportunities for Stakeholder Involvement

- Staff is planning to solicit input on:
  - Cap-setting
  - Emissions leakage
  - Allocation of allowance value
  - Compliance pathways
  - Public health analysis
  - Amendments to mandatory reporting requirements

# Upcoming Board Briefings in 2010

- Staff plans to update the Board throughout the year on the cap-and-trade program, including:
  - *February*: General discussion of offsets
  - *March*: Economic impact of the Scoping Plan and EAAC recommendations on allowance allocation and use of auction proceeds
  - *June*: General discussion of cap-setting and allowance allocation
  - *September*: Report on cap-and-trade rulemaking process to date

# Preliminary Draft Regulation (PDR)

- Released for public review and comment in November 2009
  - Advances dialogue on regulatory design features
- Includes:
  - Preliminary regulatory language
    - Cap-and-trade process and structure
  - Narrative text and placeholders
    - Concepts for discussion where specific regulatory language isn't yet developed
    - Areas for future language to be included

## What Is the Cap?

- Cap (annual allowance budget) is a statewide limit on greenhouse gas emissions from covered sources for a given year
  - There is no cap on individual covered entities
- The annual cap will decline over time to achieve an emission reduction goal
- PDR contains illustrative numbers for the annual budget from 2012 through 2020



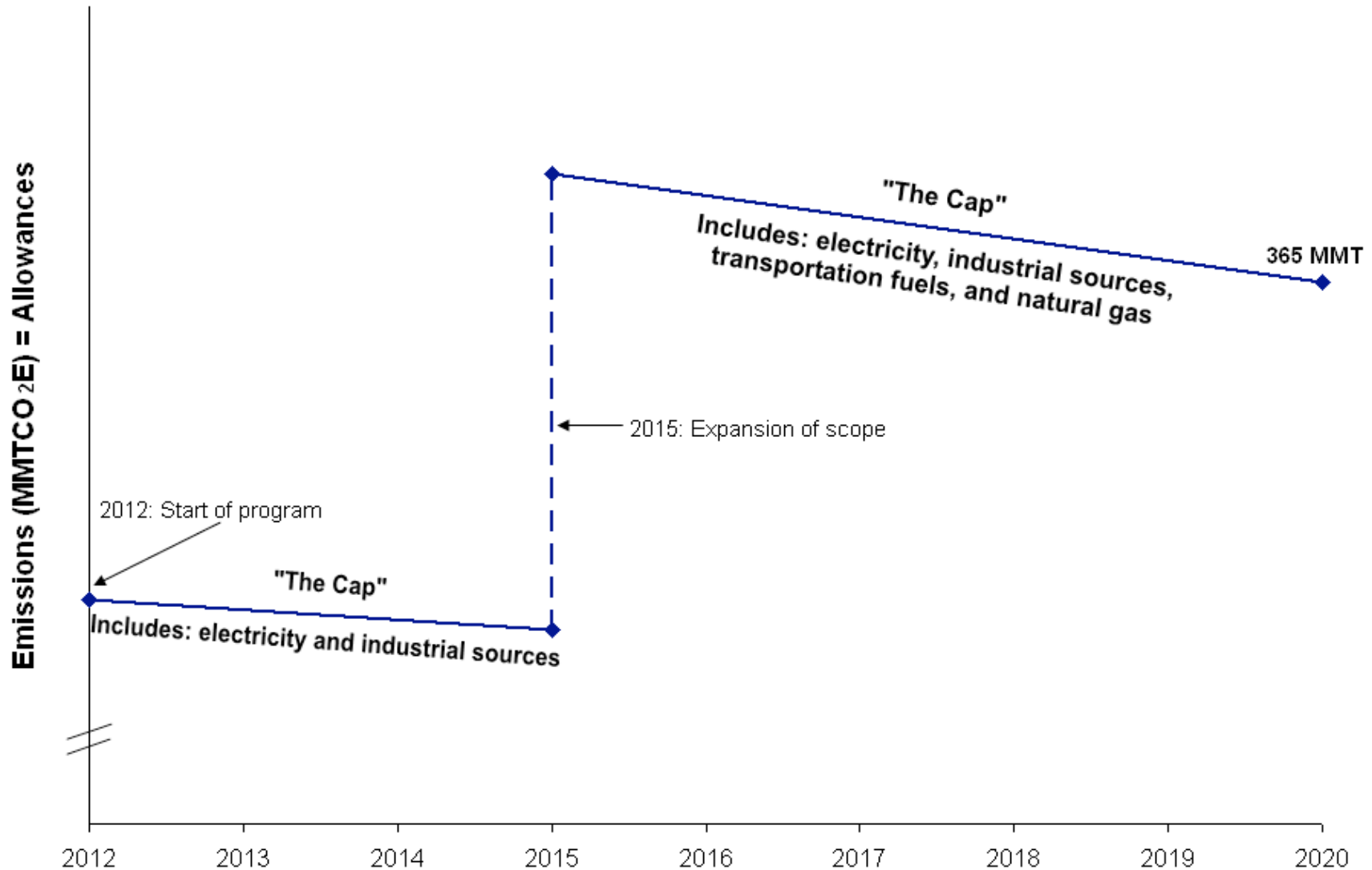
## What Sources and Emissions Are Covered?

- CO<sub>2</sub> equivalent emissions from:
  - Large industrial sources (25,000 metric tons per year or greater)
  - Electricity delivered to California grid
  - Natural gas and propane distributors and providers
  - Transportation fuels providers  
*(Transportation and other fuels may be phased in starting in 2015)*
- CO<sub>2</sub> equivalent emissions include:
  - CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub> and NF<sub>3</sub>

# What Are Allowances and Who Issues Them?

- Allowances are tradable permits that give one-time permission to emit a metric ton of greenhouse gases
- Each year, California will issue allowances equal to that year's cap
- Other cap-and-trade programs we link to (e.g., WCI partner programs) would also issue allowances that California sources can acquire to meet their compliance obligations

# The Cap (CA Allowance Budget)



## How Are Allowances Distributed?

- California will auction a portion of allowances
- California may also distribute some allowances for free
- Economic and Allocation Advisory Committee (EAAC) recommends primary reliance on auctions, with some allowances earmarked to address the program's possible effects on competitiveness for California's industries



# What Are Offsets?

- An offset is a credit for a verified emission reduction from a source outside the cap-and-trade program
- ARB ensures offsets are high quality by establishing methodologies (protocols) for quantifying emission reductions, avoidance, or greenhouse gas sequestration from a project
  - Reductions must be real, additional, quantifiable, permanent, verifiable and enforceable

# What Is the Role of Offsets?

- Help spur emission reductions in sectors not easily reached through the cap-and-trade program or other regulatory means
- Help reduce the cost to comply with the cap-and-trade program by offering an additional supply of compliance instruments that may cost less than allowances
- Staff will brief the Board on this subject in more detail in February

# What's Tradable in the Program?

- “Compliance Instruments” that can be traded include:
  - Allowances issued by California
  - Offsets issued by California
  - Allowances and offsets from linked programs, e.g., WCI

# Who Can Participate in Trading?

- Covered entities
- Offset providers whose projects and credits are approved for use in California
- Other participants, e.g., wholesale marketers, individuals who register in the tracking system could also buy, sell, or retire allowances and offsets



## Where and How Could Trades Occur?

- All traders must first register in the cap-and-trade tracking system
- Persons trading on exchanges (e.g., NYMEX) must also register in ARB's system before they can hold allowances for trading
- Trade data publication rules are being developed to maximize transparency to the public and provide safeguards to prevent market manipulation

## How Is The Integrity of the Cap Maintained?

- Registration and reporting requirements apply to all covered entities, including third-party emissions verification
- Covered entities must surrender allowances and offsets equal to their emissions
- The tracking system provides a chain of custody for allowances and offset credits that can be used in the program
- A covered entity can cover no more than 4% of emissions using offsets

# Why Limit the Use of Offsets?

- The Scoping Plan calls for a limited use of offsets in the cap-and-trade program
  - Need to maintain a strong incentive for emission reductions from covered entities in California
  - Ensure California transitions to a clean-energy, low-carbon economy

# How Would the Limit on Offsets Work?

- Scoping Plan Policy Goal:
  - Achieve most reductions from capped sources by limiting offsets to no more than 49% of emission reductions from cap-and-trade
- Preliminary Draft Regulation established method to enforce this limit
  - Limit would apply to each facility
  - Cap-and-trade program requirements for individual facilities based on *emissions*, not *emission reductions*
  - The limit of no more than 49% of *emission reductions* translates to allowing no more than 4% of a facility's *emissions* to be covered by offsets



# What Do Covered Entities Need to Do?

- Register with ARB
- Report GHG emissions annually in compliance with mandatory reporting
- Acquire compliance instruments (allowance and offsets) equivalent to reported emissions
- Surrender allowances and offsets to match emissions at the end of each compliance period
- Comply with record-keeping, market rules, verification and other requirements in the regulation

## How Would the Program Address Enforcement?

- Penalty provisions would remove any financial incentive for non-compliance
- Provisions would define what constitutes a violation
- Methods would be specified for calculating the number of violations

# What Agencies Would Be Involved in Enforcement?

- A robust enforcement program will be vital
- ARB has had ongoing discussions with other State and federal enforcement agencies, including:
  - California Attorney General's Office
  - Cal/EPA
  - California Energy Commission
  - California Public Utilities Commission
  - U.S. Department of Justice
  - U.S. EPA
  - Commodity Futures Trading Commission
  - Securities and Exchange Commission
  - Federal Energy Regulatory Commission

## Going Forward

- Provisions for allocation of allowances through auction and free distribution
- Setting the cap using allowance budgets
  - Final budgets to be included in the October 2010 proposed draft regulation
- Address results of the health impact assessment underway if potential co-pollutant impacts are identified



## Going Forward (cont'd.)

- Technical analyses to inform regulatory development
  - Economic analysis
  - Public health analysis
  - Evaluation of potential for localized emission impacts
  - Environmental analysis (CEQA)
  - Market monitoring/enforcement discussions with Attorney General's Office, federal government, etc.
  - Compliance pathway analysis

## 2010 Timeframe for Cap-and-Trade Rulemaking

- **Spring 2010**: 2<sup>nd</sup> draft regulation released for public comment and public workshop
- **September 2010**: 45-day public review begins with publication of public notice and release of staff's formal regulation proposal
- **October 2010**: Board consideration of cap-and-trade regulation