

Public Workshop

Preliminary Draft Regulation (PDR) for a California Greenhouse Gas Cap-and-Trade Program

December 14, 2009

California Air Resources Board

Purpose of Today's Workshop on the PDR

1. Provide an overview of draft regulatory provisions and concepts for discussion
2. Invite stakeholder discussion and feedback
 - Stakeholders are asked to provide written comments to ARB by **January 11, 2010**

(http://www.arb.ca.gov/lispub/comm2/bcsubform.php?listname=dec-14-pdr-ws&comm_period=1)

Outline of Presentation

- Opening Remarks
- Overview of the Preliminary Draft Regulation (PDR)
- Review of Concepts for Discussion
- Comments and Questions

Timeframe for Cap-and-Trade Rulemaking

- **January 2010**: Economic & Allocation Advisory Committee (EAAC) final recommendations on allowance allocation
- **Spring 2010**: 2nd draft regulation for public comment
- **September 2010**: 45-day public review rule package begins (3rd draft)
- **October 2010**: Board consideration of regulation
- **2nd Half of 2011**: First auction of allowances
- **January 1, 2012**: First compliance period starts

PDR Structure

- Preliminary Draft Regulation includes a mix of:
 - Preliminary regulatory language
 - Cap-and-trade process and structure
 - Narrative text
 - Concepts for discussion where specific regulatory language isn't yet developed
 - Placeholders
 - Areas for future language to be included
- ARB seeking comment on entire PDR

Applicability

- Covered Gases
 - CO₂, CH₄, N₂O, HFCs, PFCs, SF₆ and NF₃
- Covered Entities
- Opt-in Participants

What Entities Would Be Covered and When?

Beginning in 2012

- Operators of Facilities
- Electricity Deliverers
 - Operators of in-state generating facilities
 - Importing deliverers
 - Retail Providers
 - Marketers

Beginning by 2015*

- Fuel Deliverers
 - Transportation fuel deliverers
 - Producers and Importers of Gasoline, Diesel and Biofuels
 - Natural gas deliverers
 - Deliverers of natural gas liquids

Narrow Scope

Broad Scope

*Issue discussed in later slide

Who are Opt-In Participants?

- Opt-in participants are not covered entities but voluntarily participate in the cap-and-trade market in order to:
 - Retire, purchase, hold, or sell compliance instruments
 - Operate offset projects registered with ARB
 - Verify greenhouse gas emissions and emission reductions
 - Operate over-the-counter clearinghouses or trading facilities handling transactions of compliance instruments

Proposed Threshold for Inclusion of Covered Entities

- 25,000 metric tons of CO₂e per year for all covered entities
- Only emissions that generate a surrender obligation are counted toward this threshold
 - Biomass combustion at stationary sources excluded
 - Most fugitive emissions excluded
 - Staff thinking detailed in PDR Scope Table

Detailed Scope Table

- Outlines preliminary staff thinking on:
 - Which emissions generate a surrender obligation
 - Additional types of process emissions for stationary sources that will be reported
 - Coverage of fuel deliverers
 - Thresholds for inclusion in cap-and-trade and mandatory reporting
 - Comparison to WCI *Essential Reporting Requirements*

What Would a Covered Entity Need to Do?

1. Register with ARB
2. Report emissions during the compliance period
3. Acquire compliance instruments
4. Surrender compliance instruments to match surrender obligation

Registration and Tracking

- Registration creates two types of accounts in the tracking system:
 - Holding Accounts
 - Compliance Accounts
- Registration required to hold a California compliance instrument
- Opt-in registration may be revoked for rule violations
- Restrictions may be placed on covered entity accounts for rule violations

When Does Registration Occur?

- Entities would register before holding California compliance instruments
- Registration Deadlines
 - Covered entities reporting GHG emissions under the MRR by January 1, 2012 would register by March 31, 2012
 - Covered entities subject to reporting under the MRR after January 1, 2012 would register within 90 days of notifying ARB of their reporting obligation
 - Opt-in participants may register at any time

Reporting Requirements for Covered Entities

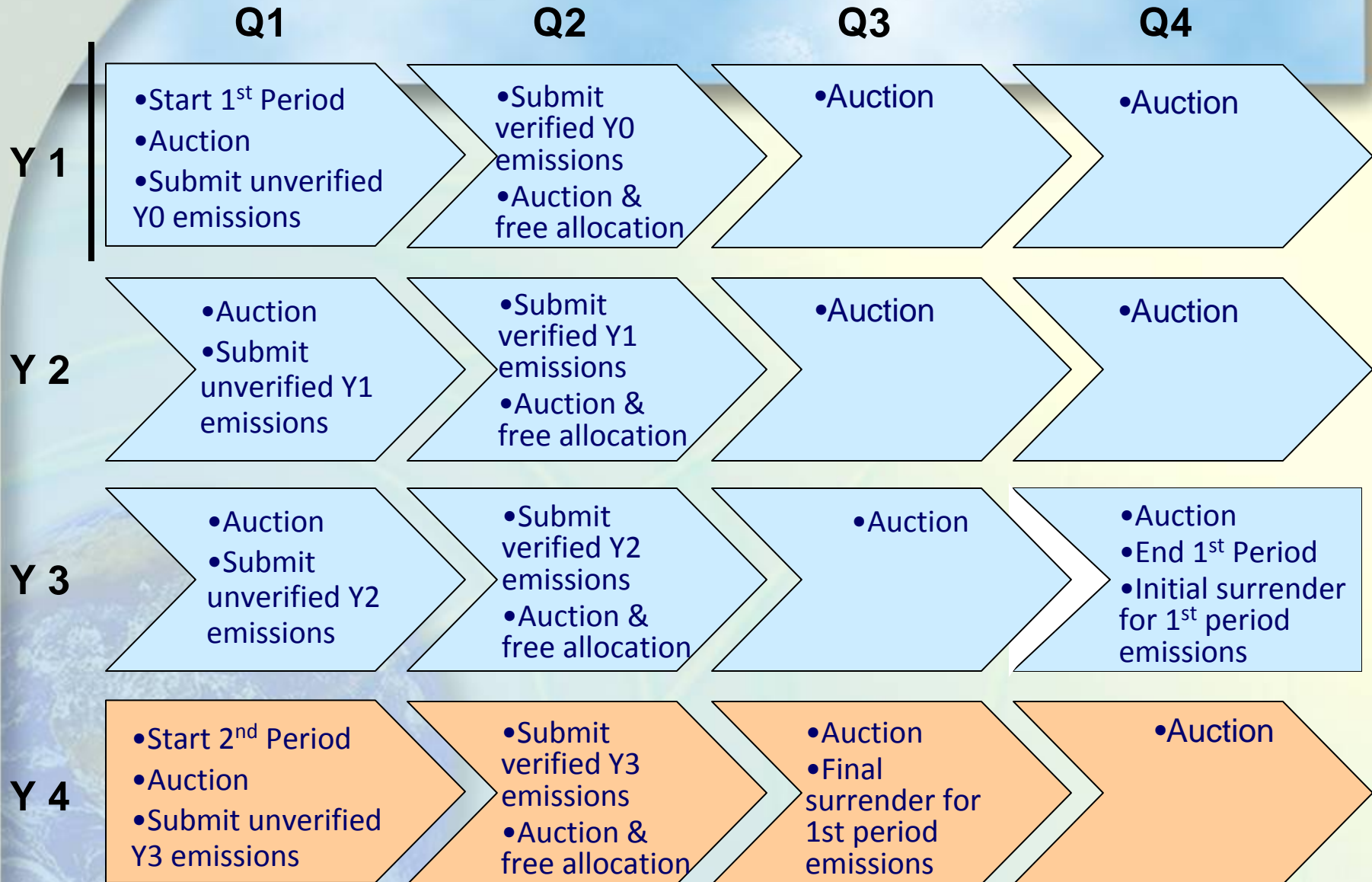
- ARB will revise Mandatory Reporting Regulation (MRR) to harmonize with rules applicable to cap-and-trade provisions
- Staff will present MRR revisions to the Board in the same rulemaking package as the cap-and-trade regulation in October 2010

Some Anticipated Changes to MRR

- Reporting threshold to be based on CO₂ equivalent (CO₂e) emissions, rather than CO₂
- Lower reporting threshold to 10,000 MT CO₂e
- Annual verification of emissions data reports for all facilities above the cap threshold of 25,000 MT CO₂e
- Additional reporting requirements for industrial process and fugitive emissions, and reporting of emissions by upstream suppliers of fuels

Timing of the Compliance Cycle

(Example using a 3 year compliance period)



Compliance Instruments: What Could Be Traded?

Instruments Issued by CA

- **CA Greenhouse Gas Allowances**
- CA Greenhouse Gas Offset Credits

Examples of Instruments Issued by External Programs that Could be Approved for Use*

- **WCI Partner Jurisdiction Allowances**
- WCI Partner Jurisdiction Offsets
- Certified Emission Reductions (CERs)
- Climate Reserve Tonnes (CRTs)

Color Coding:

Would Not be Subject to the Use Limit

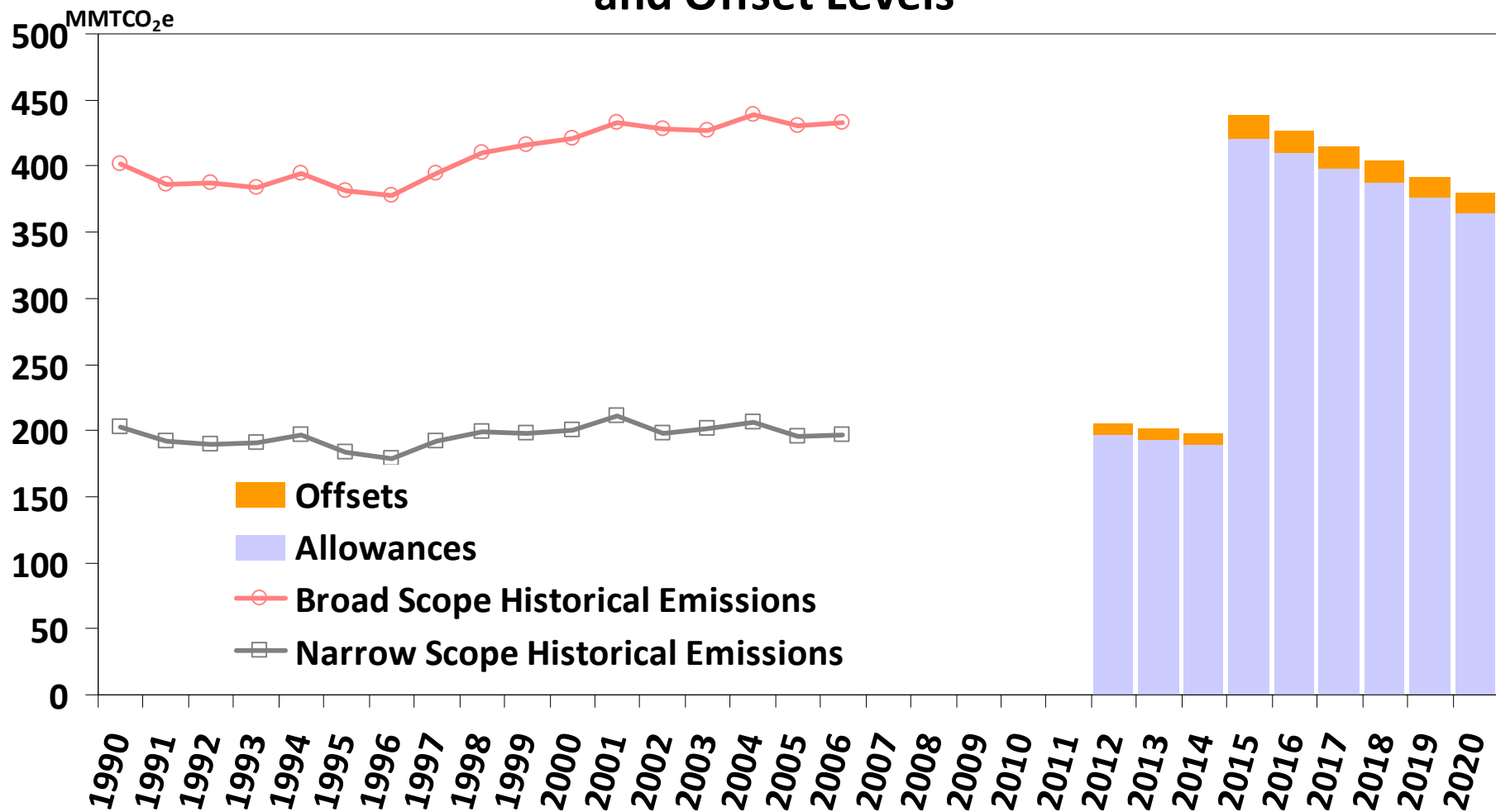
Would be Subject to the Use Limit

* May be used if linkage to these systems is approved

How Many Allowances Would Be Issued?

- PDR contains illustrative numbers that show relationship between allowances, offsets and historical emission levels
 - Presented graphically on the next slide
- Spring 2010 draft regulation to contain draft allowance budgets and offset limit level based on projected estimates
 - 2012 emissions estimates for all sources
 - 2015 emissions estimates for fuel providers

Historical Emission Trends Relative to Example Allowance and Offset Levels

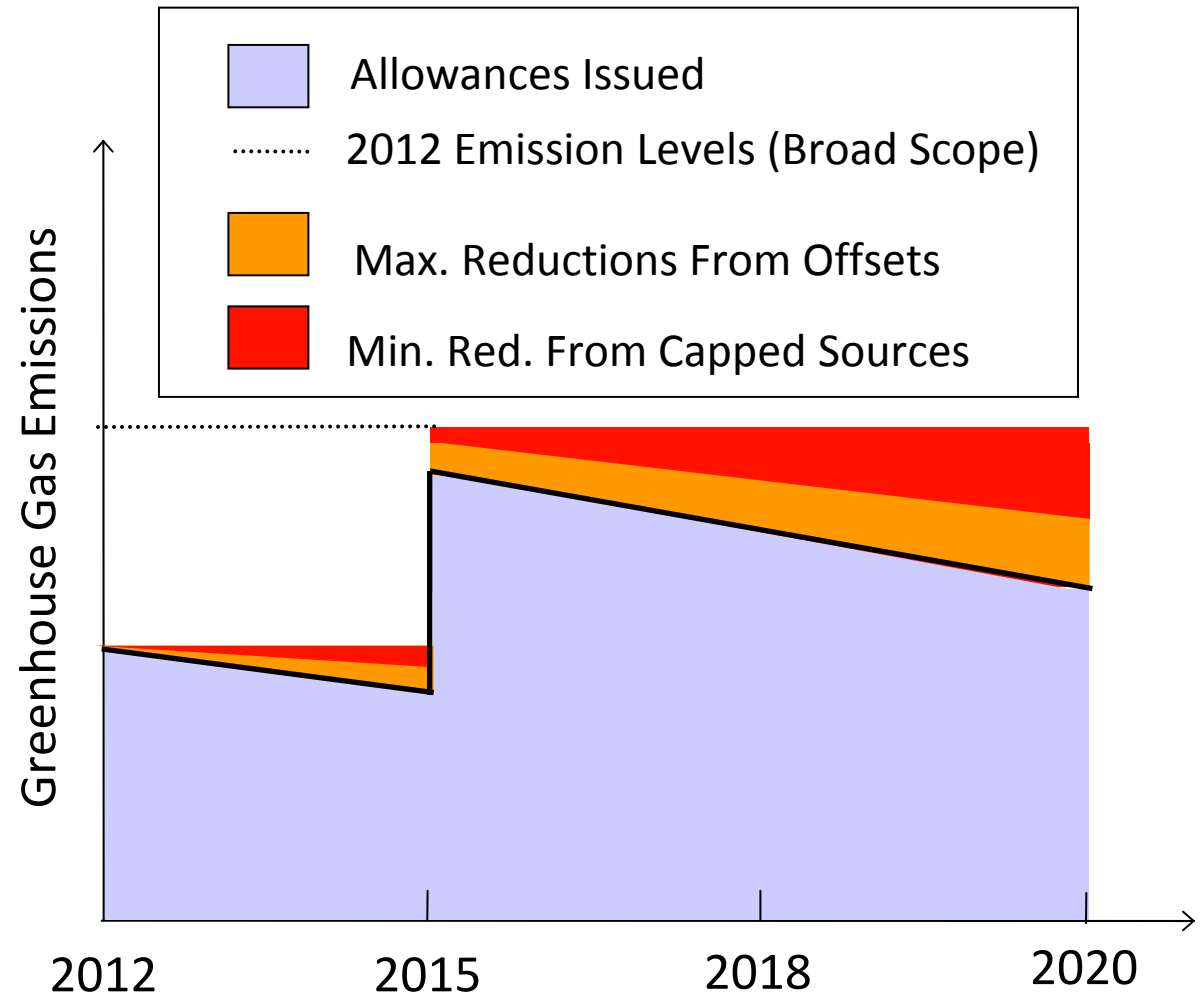


Allocation of Allowance Value

- PDR contains placeholder for allocation provisions
- PDR summarizes three claims to value of allowances discussed by the Economic and Allocation Advisory Committee (EAAC):
 - Compensation for harm
 - Californians' common claim on allowance value
 - Financing public spending related to the goals of AB 32
- Final recommendations from EAAC expected in January 2010

How Many Offsets Would Be Allowed?

- Scoping Plan Policy Goal:
 - Majority of reductions come from the covered entities
- Example implementation of the usage limit:
 - $O/S \leq 4\%$
- **O** is the number of offsets surrendered
 - Shown in orange
- **S** is emissions
 - S must equal the compliance instruments surrendered (orange plus purple)



Offset Credits

- PDR identifies rules for two types of offset credits:
 - Offset credits issued by ARB
 - Offset credits issued by an external program and accepted/approved by ARB
- Discusses whether the offsets system would be administered by ARB or an independent entity that reports to the Board
- Identifies approval process and requirements for offset quantification methodologies for offset credits issued by ARB

General Requirements for Offset Credits

- Reductions would need to meet all AB32 and ARB criteria (real, additional, quantifiable, permanent, verifiable and enforceable)
- Subject to a quantitative usage limit
- Offset projects would need to commence after 12/31/2006

Offset Credits Issued by ARB

- Offset projects would use a Board-approved offset quantification methodology and would be registered with ARB
- PDR discusses and asks for comment on where, geographically, ARB could issue offset credits
- PDR describes process for ARB credit issuance including:
 - Approving offset quantification methodologies
 - Reviewing/ approving offset projects for registration
 - Overseeing monitoring/recordkeeping of project activities
 - Reviewing verification statements from third-party verifiers
 - Determining the issuance and amount of offset credits

Process for Offset Credits Issued by ARB

(1). Offset
Quantification
Methodology
Approval

(2). Offset
Project
Registration

(3). Offset
Project
Approval

Steps can be combined administratively

(4). Monitoring of
Offset Projects

(5). Verification
of emission
reductions from
offset project

(6). Offset Credit
Issuance and
Registration

Offset Quantification Methodologies

- For offset credits issued by ARB, the Board would approve each offset quantification methodology
- Approved methodologies would consist of standardized methods for estimating project baselines and determining additionality
- PDR lays out requirements for methodologies including: quantification, additionality, baselines, accounting for leakage and uncertainty, no net harm, permanence, crediting periods, monitoring and reporting and verification

What Other Compliance Instruments Could be Allowed?

- PDR identifies criteria and eligibility for linkage to external GHG emissions trading systems (ETS) and GHG offset crediting systems
- All linkages would be approved by the Board
- PDR identifies mechanisms needed for enforcement purposes, such as a MOU
 - ARB would formalize enforcement agreements for all phases of cap-and-trade program operations

Offset Credits Issued by External Programs and Approved by ARB

- Offset credits issued by other programs may be approved if they meet AB 32 criteria and are issued by a program that is approved by the Board
- Specific provisions for offset credits issued to projects located in the U.S., Canada, and developing countries
 - Project types must be approved by the Board
- Provisions for sector-based credits including approval of sectors and crediting baselines

Concepts for Discussion

- Scope
- Cap Adjustments
- Offsets
- Cost Containment

Scope: Inclusion of Fuels in 2012

- The Scoping Plan discussed staggered approach for program scope
 - Facility operators and electricity deliverers beginning in 2012
 - Fuel deliverers beginning in 2015
- ARB seeking comment on whether inclusion of fuel deliverers should be accelerated to 2012

Scope: Surrender Obligation for Transportation Fuels (1)

- PDR includes four options for calculating surrender obligation for gasoline, diesel, and biofuels:
 1. Net “carbon content”
 2. Tailpipe combustion factor
 3. Net “carbon content” plus some portion of lifecycle emissions
 4. Emission factors based on lifecycle carbon intensity factor (per LCFS)

Scope: Surrender Obligation for Transportation Fuels (2)

- ARB is requesting comments on these options, as well as the relative importance of:
 - Fuel-switching incentives
 - Consistency of accounting across end uses
 - Scalability to a broader program
 - Reporting/administrative complexity

Cap Adjustments: Voluntary Renewable Electricity Generation

- Policy Goal: Maintain current incentives for voluntary investment in renewable power
- Estimate amount of voluntary renewable power (MWh) expected in a period
 - Calculate amount of emissions from fossil power expected to be displaced by this power
- Withhold allowances from the budgets to account for this expected voluntary renewable power
- Measure actual amount of voluntary renewable power occurring
- Retire held allowances (adjust the allowance budget) to account for demonstrated emission reductions

Offsets: Geographic Issuance of ARB Offset Credits

- Staff evaluating where ARB should issue offset credits
 - Options include limit to projects located in CA; in the U.S.; in North America; or internationally (no limits)
- Project oversight is more manageable with a smaller geographic area, but could lead to greater dependence on offsets issued by other programs
- For projects outside CA where there is less regulatory stringency for certain emitting activities, ARB is evaluating whether a benchmark for additionality should be set at the CA regulatory level

Offsets: Current Board-Approved Offset Methodologies

- Beginning in 2007 the Board began adopting quantification methodologies for voluntary purposes
 - Endorsed only the quantification methodologies as the highest standard for carbon accounting
- ARB has not yet adopted any verification requirements for reductions resulting from these methodologies
- To be considered for compliance purposes, reductions from the use of these methodologies would be subject to regulatory verification and enforcement requirements

Offsets: Enforcement of Offset Credits

- ARB may take enforcement action against third-party verifiers, offset project developers, and offset users
- Offsets determined to be ineligible after issuance or acceptance would result in revocation of the credit for compliance use
- Covered entities that surrender offsets later deemed ineligible are responsible for replacing the lost tons
 - Covered entities could take recourse with the project developer through “make-whole contracts” to replace lost tons

Cost Containment: Price Mitigation Principles

- Staff focusing on the following principles when considering cost containment options:
 1. Any attempt at price mitigation limits price discovery and adjustment, which are main benefits of cap-and-trade
 2. Mechanisms must ensure the environmental integrity of the cap by not including a “safety valve”

Cost Containment: Price Collars

- Stakeholders have expressed concern over compliance instrument prices that are either too high or too low
- ARB is considering cost containment options based on target prices known as “Price Collars”
 - “Hard” collars are price controls
 - “Soft” collars mitigate prices by changing the supply of instruments in the market
 - ARB staff believe “soft” collars would distort the market less than “hard” collars

Cost Containment Option: Auction Reserve

- ARB could set a minimum auction price (“Reserve Price”) below which allowances could not be sold at auction
 - This would not set a minimum price for secondary trades
 - Unsold allowances could be held in a Reserve Holding Account
 - Account could be augmented through direct allocation
- Allowances could be released from the Reserve during times of high prices
- ARB requesting comment but will not make a recommendation until receiving EAAC report

Cost Containment Options: Soft Price Ceilings

- Public discussions on cost containment focused on four options that would increase the number of instruments in the market:
 1. Release allowances from a Reserve
 - Does not require changes to PDR
 - Provides only limited increase in credit supply
 2. Relax quantitative use limit for offsets
 - Reduces direct reductions within California
 3. Expand acceptable offset projects by type or location
 - May reduce offset quality
 4. Allow limited borrowing from next compliance period
 - Must avoid “cascading” borrowing

Cost Containment: Length of Compliance Periods

- PDR proposes three-year compliance periods
 - Through 2020: 2012-2014, 2015-2017, 2018-2020
- A three-year compliance period could increase the magnitude of potential defaults
- PDR considers two options for mitigating the size of potential defaults:
 - Require covered entities to cover a portion of emissions by surrendering compliance instruments at periodic intervals
 - Shorten compliance period to one year with borrowing from the following year

Special Thanks to:

- California Energy Commission
- California Public Utility Commission
- ARB Enforcement Division, Legal Office, Planning and Technical Support Division, Research Division, and Stationary Source Division

Cap-and-Trade Program Development Team

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Barbara Bamberger	International forestry
Karin Donhowe	Broad scope fuels
David Kennedy , Stephen Shelby, Mihoyo Fuji, Dave Allgood, Matt Botill, Jeannie Blakeslee , Candace Vahlsing	Impact analyses (environmental, economic, localized, small business, public health)
Yachun Chow	Regulation coordination

*Lead Contact

Now It's Your Turn

- Comments and questions

