



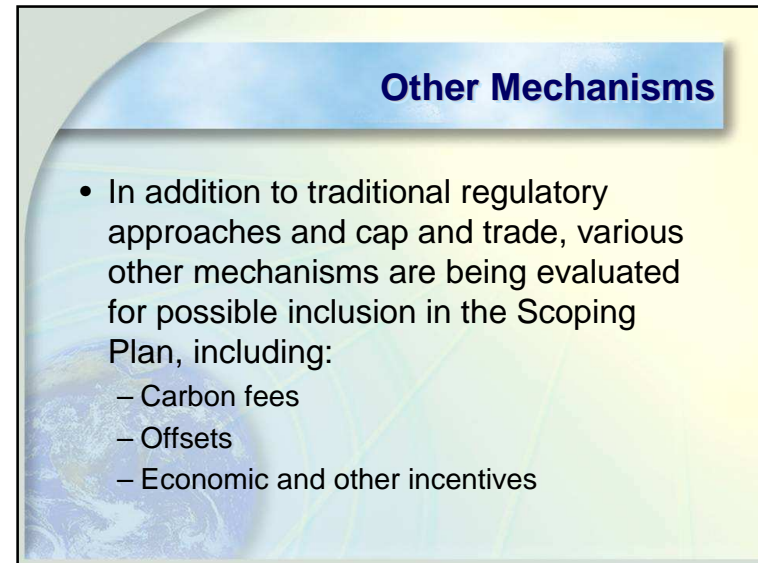
Session 5

Possible Policy Mechanisms for Emissions Reductions

Carbon Fees, Offsets, Incentives, and Other Mechanisms

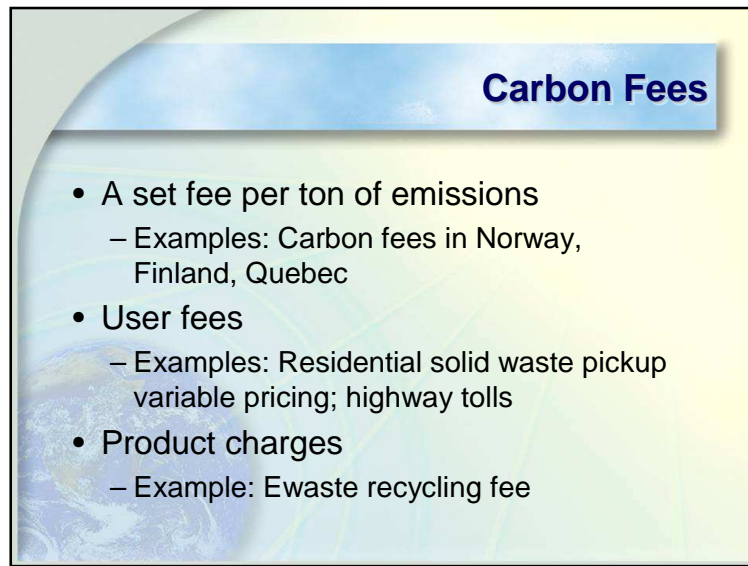
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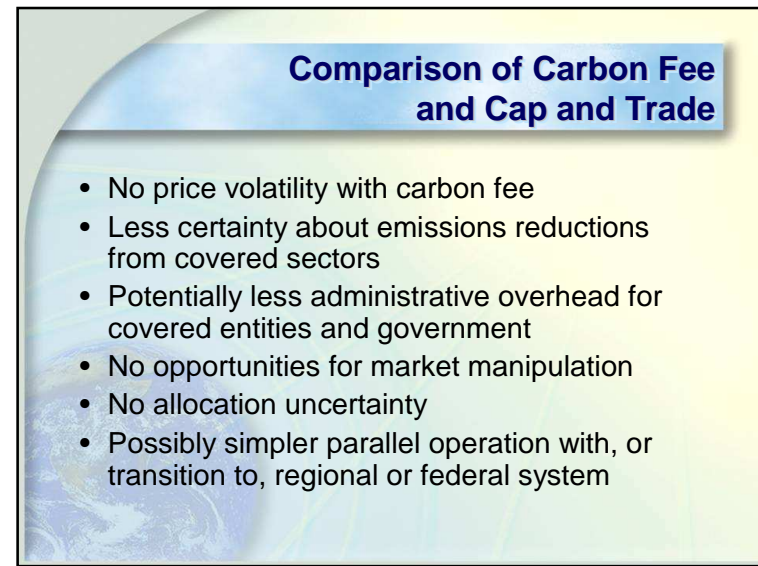
Other Mechanisms

- In addition to traditional regulatory approaches and cap and trade, various other mechanisms are being evaluated for possible inclusion in the Scoping Plan, including:
 - Carbon fees
 - Offsets
 - Economic and other incentives



Carbon Fees

- A set fee per ton of emissions
 - Examples: Carbon fees in Norway, Finland, Quebec
- User fees
 - Examples: Residential solid waste pickup variable pricing; highway tolls
- Product charges
 - Example: Ewaste recycling fee



Comparison of Carbon Fee and Cap and Trade

- No price volatility with carbon fee
- Less certainty about emissions reductions from covered sectors
- Potentially less administrative overhead for covered entities and government
- No opportunities for market manipulation
- No allocation uncertainty
- Possibly simpler parallel operation with, or transition to, regional or federal system

Revenues

- From:
 - Auction of allowances
 - Carbon fees
 - Penalties for noncompliance
- If programs in Scoping Plan are expected to produce revenues, plan will also include recommendations for distribution

Revenue Distribution Questions

- If there are revenues from programs, what criteria should establish priorities for distribution?
- What advantages or disadvantages are there to particular uses of funds?
- What body or agency should administer distribution?

Offsets

A GHG offset is a GHG emission reduction ...

- Beyond what otherwise would have happened because of regulation and common practice
- That generates a credit that can be used to meet a regulatory compliance obligation or a voluntary commitment

Offsets Overview

- What role should offsets play in California?
- Which projects should be eligible?
- What rules should govern the use of offset credits?
- What are some examples for an offsets program?

An Offsets Program

- General policies for offsets
 - Adopt protocols for voluntary reductions
 - Issue credits for recognized reductions
 - Accept offset credits from other programs
- Under AB 32, the reductions must be real, additional, quantifiable, permanent, verifiable and enforceable
 - H&S Code §38562(d)(1-2)
 - MAC recommended transparent and predictable rules
- Offsets are a possible alternative compliance mechanism for both market-based and direct regulation options

Offset Project Eligibility

- Project location (geography)
 - California only, WCI only, worldwide
- Project type
 - Forestry, dairy methane, etc.
- Project approval process
 - Standards-based vs. case-by-case approach
- Project timing
 - Start date and project length

Rules on Offset Use

- Limits on volume used for compliance
- Discounting and unit exchange rates
- Banking and borrowing of credits
 - Should rules on limits, discounting or banking vary over time or by project type?

Examples of Offsets

- EU ETS
 - No internal offsets; links to CDM and JI
 - Modest quantitative limits on offsets use
- CDM/JI
 - Case-by-case approach
 - Primarily focused on developing countries
- RGGI model rule
 - Standards-based approach; five project types
 - Primarily in-region; volume limit on credits for compliance
- MAC recommendation
 - Standards-based approach
 - No geographic or quantitative limits

Incentives and AB 32

- The Scoping Plan “shall identify and make recommendations on...potential **monetary and nonmonetary incentives** for sources and categories of sources that the state board finds are necessary or desirable to facilitate the achievement of the maximum feasible and cost-effective reductions of greenhouse gas emissions by 2020”

- (H&S Code §38561(b))

Economic Incentives

- Economic Incentives:
 - May be direct (e.g. rebates) or indirect (e.g. information disclosure)
 - Use financial means to motivate emissions reductions
 - Rely on decentralized decision-making by allowing entities to act in their own self interest

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Key Questions

- How should ARB use economic incentives to supplement other types of policy tools, such as direct regulation or a market?
- Which sectors would benefit most from economic incentive programs when looking at their overall options and policy mix?

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Advantages of Economic Incentives

- Innovation
- Less intrusive than regulatory approach
- Cost control
 - Offer low-cost alternatives to direct regulation
 - Provide flexibility and technology choice
 - Reduce administrative costs and enable smaller and dispersed sources the opportunity to participate
- Can augment regulations
 - Provide incentives for more timely reductions
 - Provide incentives for over-compliance

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Types of Economic Incentives

- Reward-Based
 - Rebate Programs
 - Subsidies
 - Feebates
- Public Disclosure of Information
 - Green Labeling
- Recognition

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Rebate Programs

- Compensate individuals or entities that buy green products or invest in green technologies
- Examples
 - California Solar Initiative
 - California Emerging Renewables Program
 - Rebate Funds
 - Rebates for Driving Less (ETAAC)

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Subsidies

- Use financial assistance provided by the government to encourage the purchase or production of certain goods or technologies
- Include grants, loan programs, tax benefits, and other government provided services

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Examples of Subsidy Programs

- CSI Single Family Low Income Incentive Program
- Carl Moyer Program
- Innovative Clean Air Technologies (ICAT) Grant Program
- AB 118 Alternative and Renewable Fuel and Vehicle Technology Program
- On-Bill Financing (ETAAC)
- “Buy California” (ETAAC)
- Revolving Fund for technology demonstration projects (ETAAC)

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Feebates

- Combine fees and rebates to promote transition to lower emitting technologies
- Could be applied to vehicles or home appliances among other categories
- Examples
 - AB 493 Clean Car Discount Bill

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Public Disclosures of Information

- Require the public disclosure of information in order to influence manufacturer/consumer behavior
- Examples
 - NEPA Environmental Impact Statements
 - California's Proposition 65
 - California's Hot Spots Act (emissions data collection)
 - US EPA Toxic Release Inventory

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Green Labeling

- Informs consumers of the influence of certain products on the environment through a uniform labeling system
- Examples
 - Endorsement Labels, e.g. Energy Star
 - Eco-Labels, e.g. Green Seal, Forest Stewardship Council, USDA Organic
 - OSHA Warning Labels
 - Green Fuels Labeling Standard (ETAAC)

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Recognition for Voluntary Actions

- Implementing methods of environmental protection for intangible rewards
- Examples
 - 1993 Climate Change Action Plan
 - U.S. EPA's 33/50 Program
 - Negotiated Agreements, e.g. Project XL
 - Adopt-a-Highway Program
 - Voluntary Carbon Market

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Next Steps

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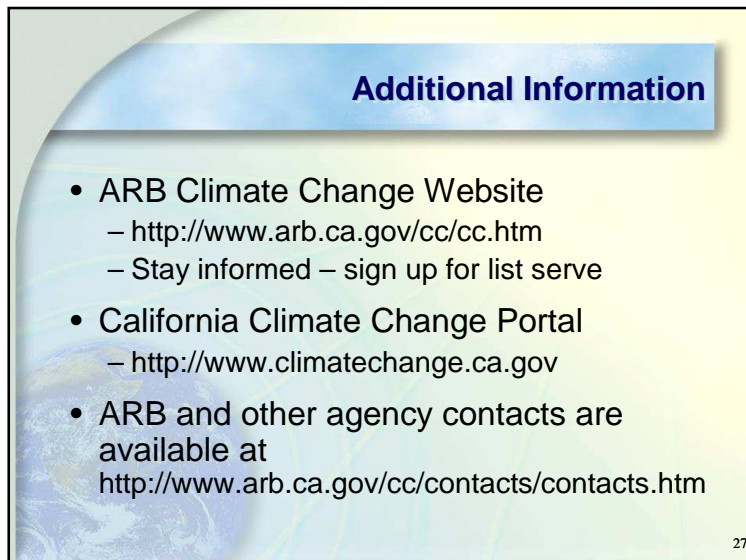
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Upcoming Events

- Economic analysis stakeholder workgroup
 - First meeting scheduled for morning of January 28
 - Tentative meetings scheduled for February 29 and March 17
- Mechanism design stakeholder workgroup being formed
 - First meeting being scheduled for early February
 - Following meetings February 29 and March 17
- Scenarios workshop in Sacramento April 4
- Many other meetings, workshops and events
- Release of Draft Scoping Plan in late June


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Additional Information

- ARB Climate Change Website
 - <http://www.arb.ca.gov/cc/cc.htm>
 - Stay informed – sign up for list serve
- California Climate Change Portal
 - <http://www.climatechange.ca.gov>
- ARB and other agency contacts are available at <http://www.arb.ca.gov/cc/contacts/contacts.htm>

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Questions and Comments?

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