

AB 32: The California Global Warming Solutions Act of 2006

Scoping Plan Workshop Policy Scenarios

May 19, 2008

California Air Resources Board

Workshop Overview

- Scoping Plan overview
- Policy criteria and evaluation plan
- Economic modeling status report



Overview of the Scoping Plan Process

Timeline

<i>Nov 30, 2007</i>	<i>Scoping Plan Kick-Off Workshop</i>
<i>Dec 14, 2007</i>	<i>Sector Summary Workshop</i>
<i>Jan 16, 2008</i>	<i>Mechanisms Workshop</i>
May 19, 2008	Policy Scenarios Workshop
June 26, 2008	Draft Scoping Plan released
Summer 2008	Workshops on draft Scoping Plan <ul style="list-style-type: none">July 8: Diamond BarJuly 14: FresnoJuly 17: SacramentoAugust: TBD
October 2008	Staff Final Scoping Plan released
November 20-21, 2008	Board Hearing on Scoping Plan

Plan Objectives

- Achieve the GHG emission target for 2020 and place California on the path to long-term reductions
- Maximize economic benefits and minimize economic harm
- Maximize societal benefits, including environmental and public health co-benefits
- Provide leadership and influence other governments
- Assure that emissions reductions required of each sector are equitable

Developing Options

- ARB has followed two parallel paths in developing the options that will be presented in the Scoping Plan
 - Identify specific emission reduction measures
 - Develop major program design options

Measure Development

- ARB has worked closely with other agencies in the Climate Action Team
- Teams have identified wide range of possible options for emission reductions, including
 - Strengthening existing programs
 - New regulatory measures
 - Voluntary programs and incentives

Measure Development

- The Scoping Plan will focus on measures that provide a path to meeting the 2020 target
 - Put on path toward 2050
- Core measures based on evaluation of the range of options
 - “Must do” measures
- Other emission reduction opportunities that could be used in a regulatory approach
- ARB will continue to work with the CAT teams to further develop options

Program Development

- Looking at many policy tools including:
 - Traditional regulations
 - Cap and trade
 - Fees and incentives
 - Voluntary actions
 - Offsets
- Scoping Plan will likely include a mix of tools

Comparison of Policy Tools

- Traditional regulations
 - Well understood
 - History of successful use by ARB
 - Would require numerous regulatory proceedings
- Cap and trade
 - Cap offers certainty on emission reductions
 - Trading offers flexibility and may reduce direct costs
 - Regional/federal/international cap and trade programs
 - Significant work needed to create effective market
- Carbon fee
 - Uncertainty about level of emission reductions
 - Would require greater analysis to determine the appropriate fee level

Voluntary Actions

- ARB encourages early voluntary reductions
 - Board adopted policy in February 2008
 - ARB working with local districts and CCAR on quantification
- Voluntary reductions may play a role in the AB 32 program going forward
 - Offsets could provide flexibility in regulatory or cap and trade programs

Draft Scoping Plan

- Strong regulatory foundation
 - Early Action Measures
 - “Core” measures
- Staff recommendations on key elements of overall approach
- Preliminary evaluations

Draft Scoping Plan: Core Measures

- Draft Plan will recommend core measures, including:
 - Tailpipe emission regulations
 - Low carbon fuel standard
 - Reducing vehicle miles traveled
 - Increased energy efficiency
 - Renewable resource development
 - High global warming potential measures

Draft Scoping Plan: Remaining Tons

- Three approaches for achieving additional emission reductions:
 - Additional regulatory measures
 - Cap and trade program
 - Carbon fees

Draft Scoping Plan: Evaluation Status

- Delays in economic modeling
 - More detail on status this afternoon
- Non-economic analysis in progress
- Evaluation will continue through the summer to support the October Scoping Plan
- Evaluation supplement released Summer '08
 - Workshop on the supplemental evaluations



Questions?

Comments?

**If you're watching the webcast,
you can email questions or comments to:
ccplan@arb.ca.gov**



Policy Criteria & Evaluation Plan

Preferred Approach in the October Plan

- The Scoping Plan published in October will recommend a single preferred approach
 - Will include core measures (could be revised from the proposed core in June draft)
 - Likely to include some combination of regulatory and market approaches to get the additional reductions needed to meet the 2020 target

Criteria for Crafting a Preferred Approach

- Meet the key Scoping Plan objectives
 - Achieve the target for 2020
 - Maximize economic benefits and minimize economic harm
 - Maximize societal benefits, including environmental and public health co-benefits
 - Assure that emissions reductions required of each sector are equitable
 - Provide leadership and influence other governments

Additional Criteria

- Consider additional factors, such as:
 - Administrative simplicity
 - Ability to enforce reductions
 - Durability and flexibility in program implementation

Integrating with Regional Programs

- California actively participating in Western Climate Initiative
- Climate change program must comply with AB 32 requirements
 - Must pass all statutory “tests”
- Regional program could help address leakage concerns and encourage action by other governments

Possible Use of Market Mechanisms

- ARB allowed to employ market-based compliance mechanisms
- Regulations must ensure:
 - Reductions are real, permanent, quantifiable, verifiable, and enforceable
 - Reductions are in addition to any reduction that is required or would otherwise occur
 - Reduction is equivalent to direct emission reduction in timing and amount

Required Steps Prior to Inclusion of Market Mechanisms in Regulations

- Prior to inclusion of market-based approaches in regulations implementing AB 32, the Board must
 - Consider potential for cumulative and localized impacts
 - Prevent increase in criteria or toxic emissions
 - Maximize additional environmental and economic benefits

Cost Effectiveness

- AB 32 calls for the maximum technologically feasible and cost-effective greenhouse gas emission reductions
- ARB will evaluate the cost of reductions using the best methods and information available
- Cost effectiveness of GHG emission reductions will not be the only criterion for deciding what to include in the program
- Will also consider other factors such as:
 - Broader societal benefits
 - Complementary policy goals such as fuel diversity
 - Sector equity

Environmental, Public Health, and Societal Benefit Analyses

- ARB is evaluating the environmental, public health, and societal benefit implications of different policy options
- Approach includes analysis of
 - Individual measures
 - Emissions by sectors
 - Flexible compliance mechanisms
 - Societal benefits
 - Energy diversity
 - Impacts to low income communities

Measure Analyses

- Analysis will provide the Board with a policy perspective and understanding of potential impacts, including:
 - Co-benefits including increases or decreases in emissions of criteria and toxic air pollutants
 - Range of potential CEQA impacts
- Where feasible, this analysis will include quantitative estimates of potential impacts.

Sector Analyses

- More detailed impacts analysis for some sectors because of potential localized impacts
 - Refining
 - LCFS (including indirect land use issues)
 - Electricity
- ARB is coordinating with the CEC on the evaluation of the electricity sector

Flexible Compliance Mechanisms

- Staff will evaluate the potential for reduced co-benefits from facilities that use flexibility options or offsets rather than instituting measures to achieve GHG reductions onsite
- Sector analysis will address the potential for foregone emission reductions when flexible compliance mechanisms are implemented
- Evaluation will consider the distribution of costs and benefits

Societal Benefits

- Qualitative analysis of the public health impacts of various policy approaches
- Use available data to perform a statewide or regional level evaluation consistent with past measures (e.g. diesel risk reduction measures)

Energy Diversity

- Use energy models to evaluate the impact of various policy alternatives on energy diversity and statewide air pollution co-benefits
- Estimate the total statewide reduction in fuel consumption resulting from the proposed measures to estimate statewide air pollution co-benefits

Impacts to Low-Income Communities

- Use E-DRAM to assess the impact of the policy alternatives on Californians by income level
- E-DRAM will help staff to evaluate the potential for disproportionate economic impact to low-income communities

Design Choices

- These evaluations and criteria ...
 - are critical for choosing among approaches
 - will inform the design choices that ARB will make in developing the details of the approaches

Status

- Preliminary report of these analyses to be included in the Draft Plan
- Will continue to refine the analyses over the summer
- Evaluation supplement will include updates on these analyses
- ARB will complete further evaluations as part of the regulatory development process



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