

Public Workshop

Discussion of the Supplement to the AB 32 Scoping Plan Functional Equivalent Document (FED)

July 8, 2011
California Air Resources Board

Introduction

- Logistics
- Introduction of Team Members
- Purpose of Workshop

Receive comments on the Supplement
to the AB 32 Scoping Plan FED

Today's Presentation

- Background and Chronology of Events
- Overview of Supplement
- Summary of the Alternatives
- Comparison of Alternatives
- ARB Process and Timeline

Background California Environmental Quality Act

- CEQA applies to most public agency decisions to carry out or approve projects that could have adverse effects on the environment
- ARB has a Certified Regulatory Program
- Must describe anticipated adverse and beneficial environmental impacts associated with proposed action
- When adverse impacts, identify feasible mitigation measures or alternatives that could reduce impacts
- Circulate analysis for 45 days for public review and comment

Background

- A 'scoping plan' is required by AB 32
- October 2008 Draft Scoping Plan circulated with FED for review and comment
- December 2008 Scoping Plan and FED considered by Board
- May 2009 final adoption by Executive Officer
- May 2011 trial court found alternatives analysis insufficient, and ARB has appealed
- June 2011 ARB releases Supplement

Overview of Supplement

- Expanded analysis of five project alternatives discussed in 2008 Scoping Plan FED
 - more in-depth description of each alternative
 - more expansive analysis of potential environmental impacts
- Baseline for analysis updated to reflect current conditions
- Statewide, programmatic level of review

Summary of Alternatives No-Project

Alternative 1: No-Project Alternative

Key Elements

- Assumes ARB does not adopt additional GHG measures
- Updated to reflect existing conditions (e.g., adopted measures)

Effects of Alternative

- Shortfall of about 22 MMTCO₂e
- Potential for fewer co-benefits

Summary of Alternatives Cap-and-Trade

Alternative 2: Program Based on Cap-and-Trade

Key Elements

- Relies on a cap-and-trade program for achieving the 22 MMTCO₂e shortfall
- Total GHG emissions decrease via a declining cap
- Provides flexibility to covered entities to pursue the most cost-effective actions to reduce emissions

Summary of Alternatives Cap-and-Trade (cont.)

Effects of Alternative

- Compliance responses
 - Upgrade equipment
 - Fuel switching
 - Implement process changes
 - Reduce operations of carbon-intense facilities in favor of carbon-efficient facilities
 - Implement carbon offset programs
- Statewide improvement to air quality and co-benefits
- Potential impacts from construction of new or modified projects to reduce GHGs

Summary of Alternatives

Direct Regulation

Alternative 3: Program Based on Source-Specific Regulatory Requirements

Key Elements

- Relies on direct regulations or performance standards to achieve reductions of 22 MMTCO₂e
- A range of sources in different sectors examined
 - Electric utilities' coal-fired electricity generation
 - Cap on large refineries, cement facilities, large oil and gas extraction facilities
 - Advanced Clean Cars

Summary of Alternatives

Direct Regulation

Effects of Alternative

- **Compliance responses/Electricity and Industrial Sources**
 - implementing energy efficiency modifications
 - fuel switching, and
 - operational improvements.
- Cost-effective regulations limited, which may lead to facilities leaving State or increased costs
- Process to develop and implement new regulations would delay GHG reductions and co-benefits

Summary of Alternatives Direct Regulation

Effects of Alternative (cont.)

- **Advanced Clean Cars**
 - improved engine and transmissions vehicle technologies
 - mass reduction
 - Improvements in electrification and accessory technologies, electric drive and hybrid technologies
- **Potential impacts**
 - greater use of electricity, and fuel cells for powering vehicles
 - construction of alternative fueling stations.

Summary of Alternatives Carbon Fee or Tax

Alternative 4: Program Based on a Carbon Fee or Tax

Key Elements

- Charge levied on economic activity
- Provides a clear price signal

Effect of Alternative

- Raises the cost of processes and products that generate the emissions
- Provide incentives to switch to lower emitting activity
- Similar to Cap-and-Trade

Summary of Alternatives Carbon Fee or Tax

Effects of Alternative 4 (cont.)

- Compliance Responses:
 - Fee and tax payment
 - Upgrade equipment
 - Fuel switching
 - Maintenance and process changes at existing facilities
- Potential for business leakage
- Potential impacts associated with siting and construction of facilities out of state
- Impacts similar to Cap-and-Trade

Summary of Alternatives

Variation of Proposed Strategies

Alternative 5: Program Based on a Variation of the Proposed Strategies

Key Elements

- Combination approach drawing on elements of Alternatives 2, 3, and 4

Effects of Alternative

- Similar to Alternatives 2, 3, and 4

Comparison of Environmental Impacts of Alternatives

Impact Analysis Based on Compliance Responses

- **Alternatives 2 and 5 :**
 - Similar impacts to Plan based on compliance responses from cap-and-trade
- **Alternatives 3 and 4:**
 - Similar impacts to Plan from different compliance responses but without offset impacts.
 - Potential for higher leakage risk and out-of-state impacts

Comparison of Alternatives AB 32 Objectives

Table 2.8.1 in Supplement and Hand-out.

- **Alternative 1** does not achieve objective
- **Alternatives 2 and 5** have highest potential to meet objectives next to Proposed Scoping Plan
- **Alternatives 3 and 4** have lower potential to meet objectives due to potential for leakage

ARB Process and Timeline

- July 28, 2011 close of review and comment period
- Staff will prepare written responses
- Written responses will be posted on ARB website
- August 24th Board Hearing to consider:
 - Comments received and written responses
 - Approval of the Scoping Plan FED as revised by Supplement

Questions?

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