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
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 MMTCO$_2$e
– 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 MMTCO$_2$e
• 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
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
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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