Public Meeting to Discuss the Updated AB 32 Economic Analysis

November 16, 2009
California Air Resources Board
Purpose of Meeting

- To provide an update on the status of the ARB AB 32 Economic Analysis
- To present preliminary results from Energy 2020 modeling work
- To present plans for economic analysis of the cap-and-trade regulation
Meeting Agenda

• Opening Remarks (5 minutes)
• Staff Presentation (20 minutes)
• ICF Presentation (1 hour)
• Questions (2 hours)
• Adjourn
The resolution adopting the Scoping Plan directs staff to:

- Report to the Board on an updated economic analysis by the end of 2009
- Seek expert input on analysis (EAAC)
- Coordinate with WCI analysis
- Foster opportunities for other economic analyses by interested parties
• Scoping Plan Updated Economic Analysis Report to be released in December 2009
• Results to be presented to the Board in January 2010
• Economic analysis to support the cap-and-trade rulemaking in 2010 will build on this work
Economic and Allocation Advisory Committee (EAAC)

• EAAC appointed by CalEPA and ARB to recommend allocation approach, uses of allowance value and provide expert input on updated AB 32 economic analyses
• The Economic Impacts subcommittee of the EAAC is working with ARB to provide feedback on assumptions, analytic tools and interpretation of results
• Weekly calls among subcommittee and ARB staff to discuss measure analysis and updated modeling effort
Key Elements of the Updated Economic Analysis

- Energy 2020 Analysis
- E-DRAM Macroeconomic Analysis
- GHG Reduction Measures Update
- Impact on Small Business
- Collaborative Modeling Exercise
- Comparison of Existing Analyses
• Energy 2020 is an integrated model of the North American economy
• Delays in assembling a Reference Case prevented use of Energy 2020 in Scoping Plan Analysis
• Used for the economic analysis of the Western Climate Initiative (WCI) program
• Continuing to update model inputs as information becomes available and evaluate the effects of Cap and Trade and other Scoping Plan policies
• ARB contract with ICF/SSI to perform modeling (presentation to follow)
E-DRAM

- E-DRAM is a computable general equilibrium model of the California economy
- E-DRAM will be used to evaluate how the costs and savings estimated by Energy 2020 affect the California economy
- E-DRAM will be used to evaluate how the updated Scoping Plan measures affect the California economy
Measures Update

• Analyses include updated cost and savings for major policies:
  – Pavley II: Under development at ARB
  – LCFS: Sensitivity analysis including changes in assumptions of input costs
  – Energy Efficiency: New estimates of cost effective efficiency from CEC 2009 IEPR
  – Renewable Energy: Incorporating E3 modeling for CPUC analysis of 33% RPS
Analysis of Small Business Impacts

• Use E-DRAM outputs to quantify industry specific impacts
• Use Employment Development Department data to evaluate employment share in industries with substantial concentration of small business
• Use Department of Finance data to evaluate share of sales in industries with substantial concentration of small business
Collaborative Modeling

- Efforts will evaluate updated Scoping Plan policies with different modeling tools using common assumptions to the extent possible
- Charles River Associates
- David Roland-Holst (University of California, Berkeley)
- Results anticipated in early 2010
Comparison of Existing Analyses

• ARB staff is reviewing and comparing existing analyses of the economic impacts of various climate policies

• Comparison of key indicators:
  – Measure cost effectiveness
  – GDP/GSP
  – Household disposable income
  – Employment
Economic Analysis of Cap-and-Trade

• Additional economic analysis to support cap-and-trade rulemaking will continue in 2010
  – Sensitivity analyses
  – Compliance pathway analysis
  – Emissions leakage analysis
C&T Compliance Pathway

As part of the economic analysis in support of the cap-and-trade rulemaking staff is:

- Developing a common framework for estimating cost and reduction potential of various abatement strategies
- Constructing marginal abatement cost curves to present possible compliance pathways based on reduction goals and estimates of future allowance price
As part of the economic analysis support of the cap-and-trade rulemaking, staff is undertaking analysis of emissions leakage

- Define emissions leakage and evaluate methodologies to identify sectors that are exposed to leakage (Spring 09)
- Propose methodology to identify leakage exposed sectors (December 09)
- Identify leakage exposed sectors based on the finalized methodology after EAAC recommendation (~Q1/2010)
- Determine how to address leakage (~Q2/2010)
For More Information...

• EAAC Web Page
  – http://www.climatechange.ca.gov/eaac

• ARB’s Cap-and-Trade Web Site
  – http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm

• To stay informed, sign up for the Cap-and-Trade listserv:

• Western Climate Initiative
  – http://www.westernclimateinitiative.org