Scope of Socioeconomic Assessments for Proposed Amendments to NOx RECLAIM

NOx RECLAIM
Working Group Meeting
January 8, 2015
Purpose

• Implement Abt Recommendations
• Stakeholder Concerns
  – Adequate review time to provide comments
  – Seeking stakeholder input early in the process
  – Better documentation of assumptions and methodology
• Committed to Provide:
  – Socio Scoping with CEQA Scoping
  – Identify Key Socioeconomic Issues and Potential Alternatives
  – 45-day review period for the draft socio for a significant SIP related rule
Legal Mandates

General Rules/Amendments

• Health and Safety Code 40440.8 (a) and (b) require Rules/Amendments with Significant Emission Reductions
  – Affected Facilities
  – Range of Probable Costs, Including Those to Industries
  – Emission Reduction Potential
  – Necessity of Adopting, or Amending the Rule
  – Availability and Cost-Effectiveness of Alternatives to the Rule
  – Impacts on Employment and the Economy of Basin
Legal Mandates
For RECLAIM Amendments

• Health and Safety Code 39616 (c) (1)
  – A Comparison between Cost and Employment Impacts of RECLAIM Amendments with those of Command and Control Regulations
  – Lower Cost & Job Impacts
  – No significant Shift from Higher to Lower Skilled Jobs

• AB 1054 (Sher) Market-Based Incentive Programs
  – Achieve Greater Air Quality Improvement
  – Strengthening the State's Economy and Preserving Jobs.
Scope

• Command and Control
  – Applicable Sources of Emission Reductions to the BARCT Level
  – BARCT Installation
  – Implementation Schedule for various Equipment Categories

• RECLAIM
  – Least Cost Combination Approach
  – Compliance Options by using:
    • Excess allocations currently available
    • Market selection of least cost controls first
    • Actual emission reductions
    • Unpredictable/unquantifiable cost mitigation factors
      – BACT
      – Equipment shutdowns
      – Cross cycle trading
Proposed Control Categories

• Refineries Subject to BARCT
  – FCCUs/Boilers, Turbines/Duck Burners, Coke Calciner, Sulfur Recovery Units, Boilers/Heaters

• Non-Refineries Subject to BARCT
  – Sodium Silicate Furnace, Container Glass Furnaces, Metal Heat Treating Furnaces, Update on Cement Kilns, ICEs, Gas Turbines
Key Input Assumptions

• Compliance Costs
  – One-time Capital/Equipment Costs (Range of Costs)
  – Annual Operating and Maintenance Costs
  – Other costs (Contingencies, Administrative, Monitoring, Permitting, etc)
  – Cost of CEQA Alternatives)

• Analysis Horizon (2016-2035)

• The Proposed Amendments Implementation Schedule

• Equipment Life/Discount Rate
Cost Input Assumptions
Command and Control (CAC)

• CAC Costs as an Upper bound Cost of the Proposed Shave
  – Equipment Counts by County, by Industry, by Equipment Category, and Equipment size
  – Capital cost and operating and maintenance costs for the appropriate equipment category and size are multiplied by the number of equipment to arrive at the total annualized (at 4% Real Interest Rate, and various equipment life)
  – Cost input beginning based on one-three years prior to assumed compliance schedule
  – Cost effectiveness not a direct input parameter
Key Output Elements

• Employment Impacts by Using Regional Economic Model (REMI)
  – Employment Impacts by Industries in the Region
  – Employment Impacts by Occupational Wage Group (High- vs Low-Paying Jobs)
  – Employment Impacts of CEQA Alternatives

• Competitiveness
  – Impacts on Relative Cost of Production
  – Impacts on Price Index

• Potential Impacts on Small Businesses/Emitters
Key Issues

- Sensitivity Analysis
- Equipment Life
- Stranded Assets
- Impacts of Shaving Methodology
- Alternatives
- Others?