

# Ozone Reducing Fuels Strategies Update

Presentation to Regional Air Quality Council

September 8, 2010

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# Overview

- Current Requirements
- Strategies Currently Under Consideration
- Overview of Preliminary DRAFT Assessment of Strategies
- Next Steps

# Current Requirements

- **Summertime 7.8 RVP Gasoline**
  - 8-hour Ozone Non-Attainment Area
  - June 1<sup>st</sup> – September 15<sup>th</sup>
  - One-pound ethanol waiver
- **Tier II Low Sulfur Gasoline: 30ppm average/80ppm max**
  - Statewide/Year Round
  - Phased-in from 2004
- **Mobile Source Air Toxics Rule (MSAT)**
  - Mandates benzene level at 1.0% or less
  - Effective January 1, 2011, mandates benzene level at 0.62% or less
- **Renewable Fuel Standards (RFS)**
  - Mandates increased usage of renewable fuels
  - Will effectively require E10 blending in all gasoline in the near term (blend wall)

# Strategies Under Consideration

- 7.0 RVP gasoline with one pound ethanol waiver
- 7.8 RVP gasoline eliminate one pound ethanol waiver
- 7.0 RVP gasoline eliminate one pound ethanol waiver
- Federal Reformulated Gasoline (RFG)
- Eliminate summertime blending of ethanol (E10)
- Each strategy reduces ozone precursors by lowering the volatility of fuel reducing evaporative VOC emissions

# Strategies Under Consideration: Background

- Considered during 2008 Ozone SIP development
  - Analyzed emission reduction benefits
    - Used approved EPA modeling tools
    - Included literature review
  - Preliminarily assessed costs based on EPA calculated generic costs
  - Considered industry cost study
    - Survey of refiners serving the non-attainment area market

# Strategies Under Consideration: Background (cont.)

- RAQC/CDPHE Stakeholder Process: Fall 2007-summer 2008
- RAQC Board decided late Summer 2008 to defer consideration of most gasoline strategies to future SIP process
- Colorado requested EPA to extend 7.8 RVP gasoline to entire non-attainment area
  - Previously required only in Denver Metro Area
  - EPA promulgated regulation effective March 31, 2010
  - Primarily paper reduction due to widespread use of 7.8 RVP gasoline in NAA prior to adoption of regulation

# Strategies under Consideration:

## Current Process

- Further strategy assessment underway to evaluate costs, benefits and administrative considerations
- RAQC/CDPHE contracted with EAI, Inc. to conduct cost analysis
  - Builds on 2008 industry analysis
  - Uses refinery modeling to determine costs of refiners that provide gasoline to non-attainment area market
  - Assesses potential supply and market impacts
  - *Preliminary* draft completed, input from industry solicited, additional review and refinement needed before release of final draft report in late 2010/early 2011
  - Report back to RAQC Board 1<sup>st</sup> quarter 2011

# Strategies under Consideration:

## Current Process

- “Draft Preliminary Assessments” developed with RAQC Fuels/Motor Vehicles Subcommittee:
  - Build on 2008 evaluation process
  - Use emission modeling for year 2015
  - Use preliminary results of fuels study
  - Included in your packet
  - Contain:
    - Preliminary estimates of emission benefits and costs
    - Implementation considerations

# General Thoughts on Preliminary DRAFT Assessment of Strategies

- Fuels strategies offer substantial ozone reductions achievable in near term, relative to current understanding of other transportation-related strategies
  - VOC reductions
  - No significant NO<sub>x</sub> reduction
- Fuels strategies would result in significant costs
  - Strategies with greatest emissions reduction are most costly
- Still need to evaluate costs and benefits relative to other transportation-related strategies

# Next Steps

- Refine Fuels Analysis: **Costs**
  - Input from refining industry
  - Input from other stakeholders
  - Further analysis and fine tuning as needed
- Refine Fuels Analysis: **Benefits**
  - Model with new MOVES modeling tool
  - Assess likely impact on ambient ozone levels
- Conduct further analysis as requested by RAQC Board and Fuels/Motor Vehicle Subcommittee