



# Climate Change Initiatives

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# Major Initiatives at the Federal Level

- Cap & Trade Legislation
- Mandatory Greenhouse Gas Reporting Rule
- EPA Greenhouse Gas Endangerment Findings
- Title V/PSD Tailoring Rule

# Cap & Trade Legislation

- Also known as the “American Clean Energy and Security Act of 2009”
- Bill passed by the House of Representatives June 26, 2009
- Creates a new federal agency called the “Clean Energy Deployment Administration”
- Imposes a cap on greenhouse gases
- Permits will be issued to reflect nationwide cap
  - Carbon credits – an allowance of 1 ton of greenhouse gas

# Cap & Trade Legislation

- Encourages source owners to reduce GHG emissions
  - Balance of carbon credits can be sold or banked for future use (trading)
  - Owners exceeding their allowances would be fined
- Over time, the cap will be reduced to achieve emissions reductions of GHG
- Emissions reductions below 2005 levels
  - 3 percent reduction by 2012
  - 17 percent reduction by 2020
  - 42 percent reduction by 2030
  - 80 percent reduction by 2050

# Cap & Trade Legislation

- Senate version of this bill pending
  - Lacking support
  - Could damage the already fragile economy
  - UEA Climatic Research Unit scandal a.k.a “Climategate” (currently under investigation)
- Cap & Trade bill “unlikely in 2010” according to Senator Jeff Bingaman, chairman of the U.S. Senate Energy and Natural Resources Committee (1/5/2010)

# Cap & Trade Legislation

- Impact to COA Air Quality Division if it were to pass?
  - Permitting section would issue permits to reflect carbon credit allowances
  - Similar to the acid rain program
  - More than likely would be administered by EPA

# Mandatory Greenhouse Gas Reporting

- Codified as 40 CFR 98 that was published in the federal register on October 30, 2009 and became effective on December 29, 2009
- Purpose of the rule is to collect data on greenhouse gas (GHG) emissions that can be used to inform future policy decisions
- The rule calls for fossil fuel suppliers and industrial gas suppliers, manufacturers of vehicles and engines outside of the light-duty sector, and certain “downstream facilities” that emit greenhouse gases to submit annual reports to EPA

# Mandatory Greenhouse Gas Reporting

- “Downstream facilities” refers to large facilities emitting 25,000 metric tons of carbon dioxide equivalent (mtCO<sub>2</sub>e) or more of GHG emissions per year
- The gases covered by the proposed rule are:
  - Carbon dioxide (CO<sub>2</sub>) – GWP = 1
  - Methane (CH<sub>4</sub>) – GWP = 21
  - Nitrous oxide (N<sub>2</sub>O) – GWP = 310
  - Hydrofluorocarbons (HFC) – GWP = 140 to 6,300
  - Perfluorocarbons (PFC) – GWP = 6,500 to 9,200
  - Sulfur hexafluoride (SF<sub>6</sub>) – GWP = 23,900



# Greenhouse Gas Reporting – Federal vs. Local

- Local GHG reporting rules required by 20.11.47 NMAC and 20.11.48 NMAC
  - Only required for three source categories: Cement manufacturing, petroleum refineries, and electrical utilities generating over 25 MW
- Federal rule captures more sources than our local GHG reporting rule due to the 25,000 metric ton threshold
- Local rule appears to be redundant

# EPA Greenhouse Gas Endangerment Findings

- Findings were signed by the Administrator on December 7, 2009, published in the federal register on December 15, 2009 and will become effective on January 14, 2010.
- On April 2, 2007, in *Massachusetts v. EPA*, 549 U.S. 497 (2007), the Supreme Court found that greenhouse gases are air pollutants covered by the Clean Air Act
  - The Court held that the Administrator must determine whether or not emissions of greenhouse gases cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision

# Key Effects of the Endangerment Findings According to EPA

- Temperature
  - Intense heat waves resulting in heat related mortalities
- Air Quality
  - Increased ozone pollution
- Climate-Sensitive Diseases and Aeroallergens
  - Increased disease and water borne pathogens due to temperature and precipitation changes
- Vulnerable Populations and Environmental Justice
  - Vulnerability due to less resources, lower incomes
- Extreme Events
  - More severe storm impacts especially along Gulf/Atlantic coasts

# EPA Greenhouse Gas Endangerment Findings

- Paves the way for EPA to finalize the proposed greenhouse gas emission standards for light-duty vehicles
- EPA has not yet announced how it would regulate stationary sources. However, EPA has developed a proposed rule for large stationary sources of GHG.

# Proposed Title V & PSD Tailoring Rule

- Proposed rule published in the federal register on October 27, 2009, public comment period ended on December 28, 2009
- Facilities subject to the rule would be required to obtain permits that would demonstrate they are using the best practices and technologies to minimize GHG emissions
- Need to “tailor” the Title V/PSD programs since current applicability thresholds are too low (100 tpy & 250 tpy for criteria pollutants)

# Proposed PSD Tailoring Rule

- The Prevention of Significant Deterioration (PSD) Permit Program
  - Used for permitting major stationary source construction or major modification of a major stationary source. Designed to prevent significant deterioration of air quality in attainment and non-attainment areas.

# Proposed PSD Tailoring Rule

- Major stationary source threshold of 25,000 tpy CO<sub>2</sub>e. This threshold level would be used to determine if a new facility or a major modification at an existing facility would trigger PSD permitting requirements.
- Significance level between 10,000 and 25,000 tpy CO<sub>2</sub>e. Existing major sources making modifications that result in an increase of emissions above the significance level would be required to obtain a PSD permit (major modification). EPA is requesting comment on a range of values in this proposal, with the intent of selecting a single value for the GHG significance level.

# Proposed Title V Tailoring Rule

- Title V permitting program is designed to consolidate all “applicable requirements” under one operating permit for major sources
- Under the Title V operating permits program, the major source emissions applicability threshold of 25,000 tons per year (tpy) of carbon dioxide CO<sub>2</sub>e is proposed for new and existing industrial facilities



# Proposed Title V & PSD Tailoring Rule

- Impact to COA/AQD permit programs?
  - State Implementation Plan (SIP) revisions for major NSR (PSD) to regulate GHG
  - Revise local Title V program to regulate GHG
  - Impose GHG control technology requirements
    - Carbon capture and sequestration
    - Energy efficiency improvements
  - GHG emission fees
  - May need additional resources to run these programs

# Proposed Title V & PSD Tailoring Rule

- If promulgated, EPA must re-evaluate the final GHG emissions thresholds after an initial phase which is proposed to last five years. EPA will complete a study to evaluate whether it is administratively feasible for PSD and Title V permitting authorities to adequately administer their programs at lower GHG thresholds.
- EPA will follow-up one year after the initial phase that will:
  - Confirm the need to retain the GHG permitting thresholds for PSD and/or Title V at the levels promulgated with the rulemaking, OR
  - Establish different GHG threshold levels that more accurately reflect the administrative capabilities of permitting authorities to address GHGs

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Questions?