

EPA's GHG Rule



CAAAC

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State of the Union

- In his 2007 State of the Union Address, the President called for a reduction in petroleum-based gasoline consumption by 20% in 10 years (Twenty-in-Ten plan)
 - 15% through renewable plus alternative fuels; equivalent of ~35B gallons
 - 5% through vehicle efficiency improvements; equivalent of ~4% per year

Supreme Court Decision

- On April 2, 2007, the Supreme Court ruled that the EPA must take action under the Clean Air Act regarding greenhouse gas emissions from motor vehicles.
- The decision had three elements:
 - States had standing to bring suit
 - CO₂ is a pollutant under the CAA
 - EPA must use different criteria to base decision on whether or not to regulate

Executive Order



- On May 14, the President signed an Executive Order directing EPA:
 - To develop regulations to respond to the Supreme Court's decision
 - To use our existing authority under the CAA
 - To utilize the Twenty-in-Ten proposal as a framework
 - To work together with other Agencies (DOE, USDA, NHTSA) in doing so
- Timeline:
 - Proposal: Fall '07
 - Final Rule: Fall '08

Overall Approach

- Given the short timeframe, we want to follow the successful RFS rule process
 - Substantial dialogue & coordination with other Agencies (DOE, USDA, DOT, NHTSA, OMB)
 - Extensive early outreach with all key affected stakeholders
 - “Front loaded” outreach process to get early input on program design
- Within this process, we are looking at three major areas of work:
 - Endangerment finding
 - Vehicle regulations
 - Fuel regulations

Endangerment Finding

- Endangerment finding is prerequisite to standard setting under these statutory authorities
- Under Section 202:
 - The Administrator shall by regulation prescribe standards applicable to the emission of any air pollutant(s) from motor vehicles, “which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare.”
- EPA will not be creating a new scientific assessment
- EPA will rely most heavily on recently published, consensus-based, peer-reviewed assessments and reports
 - IPCC Fourth Assessment Report, 2007
 - CCSP Synthesis and Assessment Products (as available)
 - National Academy of Sciences
- Timeframe will be consistent with effects of GHGs on climate (i.e., over next few decades and beyond to ~2100)

Vehicles

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CAA Authority

- Primary authority to regulate motor vehicle emissions falls under Section 202(a)(1):
 - “The Administrator shall by regulation prescribe ...standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles or motor vehicle engines which in his judgment cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare.”
- First EPA rule to regulate GHG emissions from cars and trucks
- EPA and NHTSA technical teams jointly evaluating potential vehicle technologies to improve fuel economy
 - Carefully assessing feasibility, lead time and costs

Key Analyses

- Scope
 - While CAAA section 202 allows us regulate other mobile sources such as heavy-duty or nonroad, current focus is on light-duty cars & trucks (incl. MDPVs)
- Program structure
 - Basis/form of standard
 - Credit trading & implementation mechanisms
- Technological feasibility assessment
 - Stringency
 - Safety
 - Leadtime
- Cost analysis
- Benefits analysis
- GHGs & air quality analysis
- Economic impact assessment

Stakeholder Outreach

- **Vehicle Manufacturers**
- **Tier 1 Vehicle Component Suppliers**
 - Discussions focused on cost and efficiencies, as suppliers manufacturer the majority of the GHG reduction technology components
- **Environmental community stakeholders**
- **States**

Fuels

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CAA Authority

- 211(c) allows EPA to set controls on fuels as a means for reducing emissions of an air pollutant that endangers public health or welfare
- CAA 211(o) added by EPA Act (2005) would allow us to require greater volumes of renewable fuels, but by itself is limited in scope
 - Alternative fuels cannot be included
 - Higher volumes could not be specified prior to 2013
 - Several restrictions (e.g., 48 state, gasoline only)

Fuels Rulemaking

- Unlike the RFS, new volumes will exceed BAU
 - More rigorous analyses is warranted
- 35 billion gallon feasibility
 - What are the potential fuel pathways for achieving 35 billion gallons?
 - What are the relative costs of these fuels?
 - What vehicle-fuel combinations may be needed?
 - How can these increased volumes be distributed? Will there be enough truck and rail capacity? How many E85 stations will be needed?
- Addressing issues identified in RFS, e.g.
 - Lifecycle GHG model and assumptions
 - International impacts
 - Energy security assessment
- Air & water quality, and other factors relating to sustainability

Key Analyses

- Basis/form of standard
- Trading & implementation mechanisms
- Lifecycle GHG and energy analysis
- Emissions inventories for criteria pollutants & GHGs
- Air quality analysis
- Benefits analysis
- Economic impacts
- Feasibility & costs
- Energy impacts, energy security
- Agricultural impacts
- Impacts on water quality, soil, pesticides, etc

Stakeholder Outreach

- **Extensive stakeholder involvement throughout process (building on the collaborative relationships we built for RFS)**
- **Gather stakeholder input on key elements:**
 - Form of standard
 - Trading & implementation mechanisms
 - Feasibility
 - Costs
 - Flexibilities
 - Timing; phase-ins
 - Safety
- **Key stakeholders:**
 - Oil companies
 - Renewable & alternative fuels industries, including coal and electricity
 - Fuel distributors
 - NGOs
 - States
 - Small refiners, small volume mfrs