Office of Transportation and Air Quality, USEPA

National Association of Clean Air Agencies

Fall Membership Meeting

October 20, 2008

Upcoming Priorities and Challenges for OTAQ

- Implementing New Regulations
- Ocean Going Vessels – IMO
- New NAAQS for PM and Ozone
- EISA Renewable Fuel Standard
- Advanced Notice of Proposed Rule – Greenhouse Gas
- Clean Diesel Partnership Programs
  - National Clean Diesel Campaign and SmartWay

Recent Mobile Source Clean Air Rules:

Comprehensively Addressing NO_x and PM Emissions

- Clean Cars and Passenger Trucks
  - Gasoline sulfur control (30 ppm avg / 80 ppm max, 2006 for most refiners)
  - 77-95% lower light-duty vehicle standards (phased in from 2004-2009)
  - Same standards for light trucks and cars; gasoline and diesel
- Clean Heavy-Duty Trucks and Buses
  - Diesel sulfur control (15 ppm maximum, phased in from 2006-2010)
  - 90% lower heavy-duty gasoline & diesel vehicle standards
  - PM filter forcing standards, NOx catalyst based standards
- Clean Nonroad Diesel Engines and Equipment
  - Diesel sulfur control (2 steps - 500 ppm in 2007, 15 ppm in 2010)
  - Marine diesel sulfur control (15 ppm maximum) in 2012
  - 90-95% lower emission standards – 2011-2014
- Locomotive and Marine Diesel Standards
  - Requiring same technologies as on-highway and nonroad, 2014-2016
- Small Engine Standards
  - New exhaust emission standards take effect in 2011 or 2012 depending on engine size

Reducing Emissions from Ocean Going Vessels (C-3)

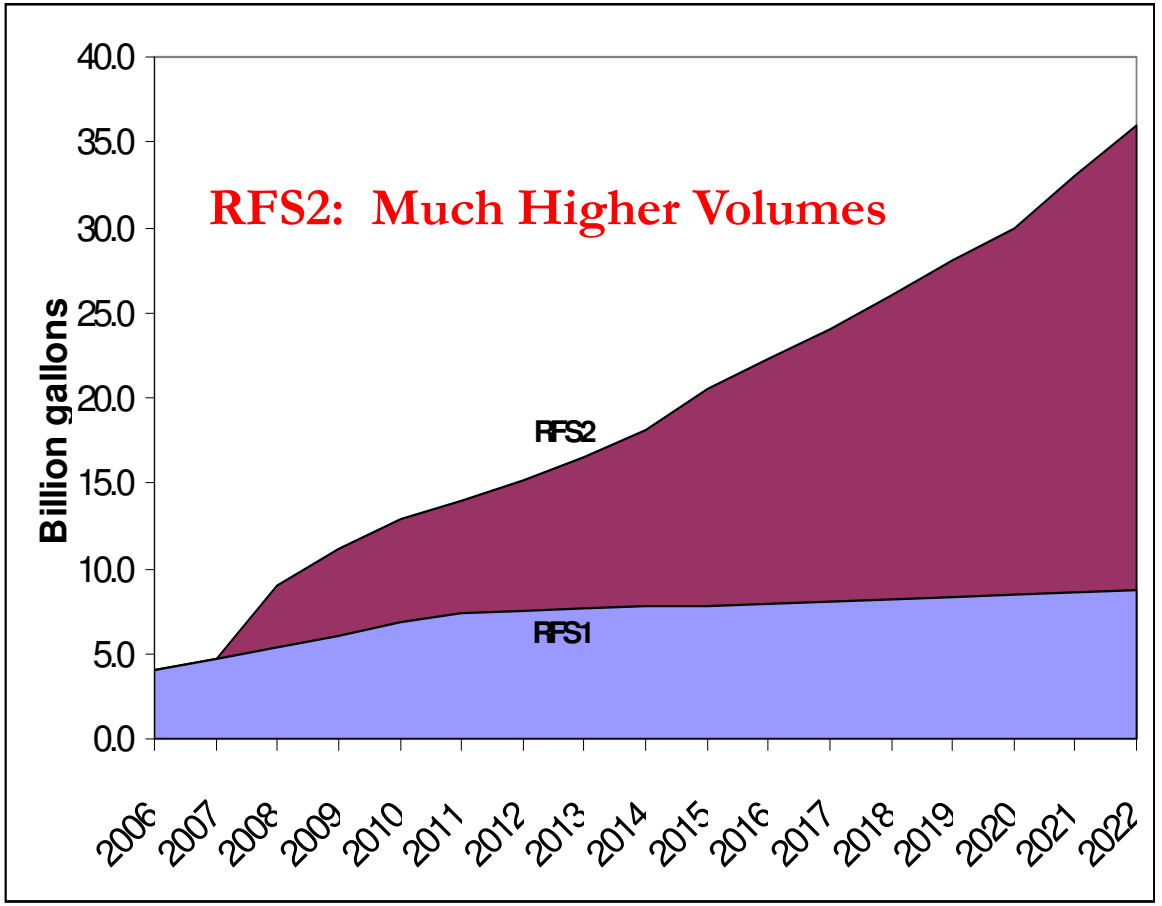
- The recent IMO meeting was a great success
  - Stringent new standards were adopted on October 9, 2008
- New engines
  - 20% reduction in NOx in new engines 2011
  - 80% NOx reduction in Emission Control Areas (ECAs) by 2016
- Fuel Quality Standards
  - 1,000 ppm sulfur in ECAs by 2015
  - 5,000 ppm global sulfur level by January, 2020
- Existing engines – 15-20% NOx reductions starting in 2010
- By March, 2009, the US needs to propose an amendment to designate US coastlines as Emission Control Areas
- We are also developing an NPRM, targeted for April 2009, to establish standards under the CAA

Implications of New NAAQS

- OTAQ will continue to work to implement current control strategies:
  - Implementing the pipeline of existing regulations
  - I&M strategies
  - Diesel Retrofits
- However, even with the control strategies "in the pipeline," mobile sources will continue to pose a significant future threat to public health and welfare.
- OTAQ is assessing the potential of new mobile source measures that could help States as they struggle to achieve new NAAQS standards

Energy Independence & Security Act of 2007

- Signed by President in December 2007
- Modifies Current RFS program beginning in 2008
  - Volumes increase to 36 Bgal/yr by 2022
  - Establishes new renewable fuel categories and eligibility requirements, including GHG thresholds and annual standards
  - Provides new waivers and paper credit provisions
  - Anti-backsliding regulations and other studies and reports
- Schedule
  - NPRM, Fall, 2008
  - Final, Mid-2009



Lifecycle GHG Thresholds

- Each fuel category is required to meet mandated GHG performance thresholds (reduction compared to baseline petroleum fuel replaced)
  - **Conventional Biofuel** (ethanol derived from corn starch) – 15 B gallons
    - Must meet 20% lifecycle GHG threshold
    - Only applies to fuel produced in new facilities
  - **Advanced Biofuel –** 21 B gallons
    - Essentially anything but corn starch ethanol
    - Includes cellulosic ethanol (16 B gal.) and biomass-based diesel (1 B gal.)
    - Must meet a 50% lifecycle GHG threshold
  - **Biomass-Based Diesel**
    - E.g., Biodiesel, "renewable diesel" if fats and oils not co-processed with petroleum
    - Must meet a 50% lifecycle GHG threshold
    - 20-50% still counts as renewable fuel
  - **Cellulosic Biofuel**
    - Renewable fuel produced from cellulose, hemicellulose, or lignin
    - E.g., cellulosic ethanol, BTL diesel
    - Must meet a 60% lifecycle GHG threshold
- EISA language permits EPA to lower the lifecycle GHG thresholds by as much as 10%
- Baseline fuel for comparison is gasoline and diesel fuel in 2005

GHG Advance Notice of Proposed Rulemaking

- March 2008 - EPA announces intent to develop "Advanced Notice of Proposed Rulemaking" for regulating greenhouse gas emissions under Clean Air Act
  - Explores implications of possible regulations of stationary and mobile sources
  - Solicits public input and relevant information regarding interconnections
  - EPA's first response to initial ICTA petition of 2001 and the 7 mobile source petitions
- July 11, 2008 – ANPR Signed by Administrator
  - Published in the Federal Register on July 29
  - Comment period closes, late November

GHG ANPR - Request for Comments on Potential Mobile Source Controls

- Requested input on how to use Title II to address the significant, long-term challenges of GHGs from mobile sources. Requests include:
  - ***Light-duty*** – time frames for standard setting; standard metrics (e.g., grams/mile); relevant GHGs; test procedures; compliance and enforcement programs; and how best to coordinate with NHTSA CAFE program.
  - ***HD Trucks*** – moving beyond engines to establish vehicle-based controls through setting of "g/ton-mile" standards and incentives for operational GHG reduction strategies.
  - ***Nonroad*** – potential to apply current and future highway engine technology to this sector, where fuel economy has not been a high priority in the past..
  - ***Marine*** – IMO initiatives and methods to address GHGs through engine-based, vessel-base, and operations-based strategies.
  - ***Aircraft*** – work with FAA and ICAO; proposed CO_2 cap on all EU flights; technologies and operational strategies to reduce GHGs; policy tools such as a fleet-based GHG performance standard/declining average.
  - ***Fuels*** – regulating GHGs from all fuels; establishing a low carbon fuel standard; assessing life-cycle GHGs emissions.

Addressing the Legacy Fleet

National Clean Diesel Campaign: $50 million in grants/loans in FY 2008

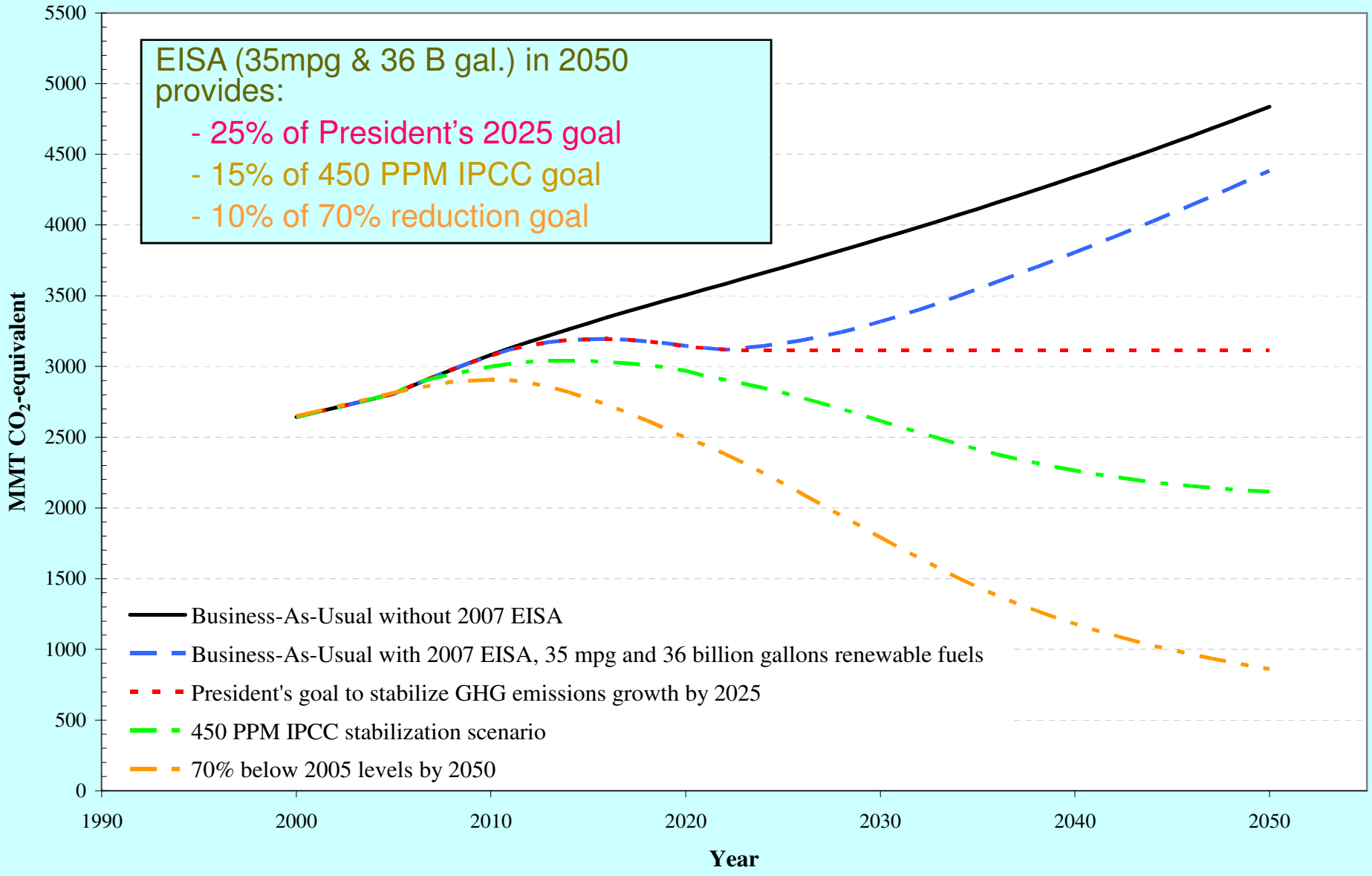
- Already awarded $3.4M to set up innovative financing programs
- Another $14.8M will be awarded to State Clean Diesel Programs. All 50 States will receive funds, and 35 will put matching funds toward these programs
- Later this fall, $27.6M will be distributed by EPA's 10 Regions.
- Grant awards for emerging technologies totaling about $3.4M will be announced this winter.

SmartWay Program

- SmartWay Partnership program works with the freight and shipping sectors to adopt sustainable transportation strategies that save fuel, reduce emissions, and protect the environment.
- We currently have over 1,100 SmartWay Partners committed to reducing emissions
- SmartWay Partners drive over 600,000 trucks and travel over 50 billion miles per year.
- In addition to GHG reductions, partners will save the trucking industry at least $2.3 billion in annual fuel and maintenance costs

Appendix

U.S. Transportation GHG Emissions Projections and Illustrative Targets Based on Proportional Reductions



U.S. Mobile Source GHG Emissions by Sub-sector (2006)