

The Economic and Environmental Costs and Benefits of Reducing Greenhouse Gases: *Industry Perspectives*





Agenda

- Introduction to ACC
- Current climate regulations
- Legislative history
- Impact to chemical industry
- Economic Implications
- Responsible Care[®]



Who is ACC?

- The American Chemistry Council is the oldest trade association in North America
- Primary association for the chemical industry in the U.S.
- Currently ~140 member companies representing ~85% of U.S. chemical production by volume
- Diverse membership ranging from very large U.S. companies to multinationals to small companies



Responsible Care[®]

- ACC's global, voluntary initiative to continuously improve and protect the environment, and improve public and employee health and safety.
- Objectives:
 - Continuous environment, health, safety and security performance
 - Responsive to the concerns of our stakeholders about our operations and products
 - Strive for zero incidents, accidents and fatalities.
- All ACC members and partners must participate in Responsible Care[®], implement our security code, report annual performance metrics, and undergo third-party certification of program



Regulatory history for climate

- 2007, *Massachusetts vs. EPA*
 - The Supreme Court found that the Clean Air Act’s definition of pollutant may include CO₂ and other GHGs. As a result, if EPA determines GHGs cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare it must regulate GHG emissions from light duty motor vehicles under Section 202.
- 2008, Advanced Notice of Proposed Rulemaking
- 2008, EPA’s Interpretation of Regulations that Determine Pollutants Covered by Federal Prevention of Significant Deterioration (PSD) Permit Program (“Johnson Memo”), reconsidered in 2010
- 2009, Greenhouse Gas Mandatory Reporting Rule, as per FY2008 Consolidated Appropriations Act
- 2009, Final Endangerment Finding for GHGs
- 2010, Final Section 202 Rule (“Motor Vehicle Rule”)
- 2010, Final Tailoring Rule



Legislative climate history

- 2009, American Clean Energy and Security Act (“Waxman Markey”) passes House by a vote of 219 to 212 that would have created a climate cap-and-trade system for many industries.
- Bill did not pass in the Senate



So, where are we now?

- No comprehensive climate bill expected in the 112th Congress
- Possibility of a Congressional challenge to EPA's climate rules
- Courts have not yet ruled on legal challenges to EPA's climate rules



How this impacts the chemical industry

- **Mandatory Reporting Rule (MRR)**
 - Proposed in 2008; final in 2009
 - Covers facilities with more than 25,000 tpy CO₂e emissions from combustion or source categories, or all facilities in certain source categories
 - First reporting year will be 2010 data, due to EPA by March 31, 2011.
 - Facilities are currently registering in the electronic reporting system
- **Confidential business information (CBI)**
 - Original EPA proposal was to publicly report all inputs to emission equations
 - Pressure from many, including industry and FTC, resulted in EPA delaying reporting of input data as well as seeking additional clarifying information from impacted industries

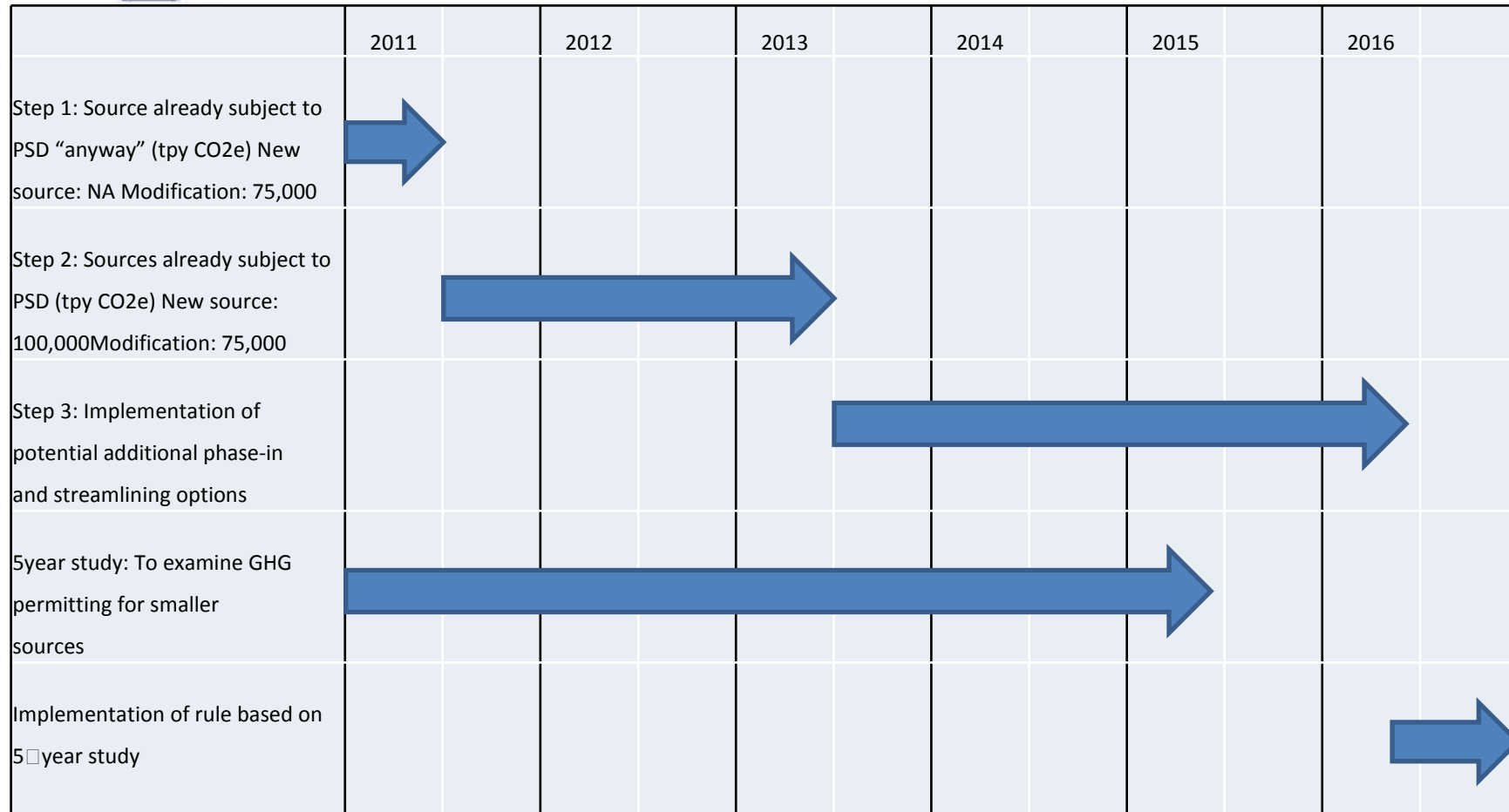


Climate permitting is going forward

- Large industrial facilities and utilities (EGUs) are now required to obtain preconstruction permits (PSD) that will require the use of the “Best Available Control Technologies” (BACT) to address GHG emissions
- These large facilities will also need to include GHG emissions data in operating (Title V) permits



PERMITTING STEPS UNDER THE TAILORING RULE





Economic Implications

- Facilities are currently incurring costs to gather and report GHG emissions data in a manner compatible with EPA's system
- Future new and modified facilities will have to incorporate GHG BACT into permits, which will likely result in increased control costs to facilities and additional permitting times.
- Each permit is unique, so no certainty at this point as to what is required.



Climate change – upcoming regulations

New Source Performance Standards (NSPS)

- EPA recently proposed 2 settlement agreements that would cover GHG emissions from EGUs and refineries.
- Proposals due in 2011; final rules due in 2012.
- Small potential for boilers at chemical facilities to be included in the refinery NSPS.
- EPA will likely continue to regulate GHG emissions from other source categories using NSPS over the next decade.
- NSPS for refineries and utilities will likely result in higher costs for our facilities through fuel switching, demand for cleaner energy (i.e. natural gas) and higher electricity bills.



Responsible Care[®] metrics

- ACC requires members and Partners to report performance annually
- Membership reports on about 25 metrics
 - Performance Reporting covers:
 - Distribution and Supply Chain
 - Employee Health, Safety and Security
 - Product Safety
 - Manufacturing or Process Safety
 - Environmental Indicators



Responsible Care[®] metrics

- Three Environmental Metrics
- Greenhouse Gas and Energy Efficiency
 - Reduced emissions by 16% since 1992
- Energy Efficiency
 - Improved Energy Efficiency by 10% since 1992
- Hazardous Air Pollutants
 - Reduced emissions by 71% since 1988



For More Information

- Lorraine Gershman, ACC
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- EPA's climate change regulations:
<http://www.epa.gov/climatechange/initiatives/index.html>
- Mandatory Reporting Rule for GHGs:
<http://www.epa.gov/climatechange/emissions/ghgrulemaking.html>
- Responsible Care®: www.responsiblecare.com