

## Integration of Traditional State Emission Inventory and Climate Registry Systems

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### First: My Convictions

- A true scientist is always skeptical until the hypothesis is proven repetitively from many aspects
- There is lots of evidence, produced by credentialed scientists, that global climate is changing and it is convincing that human generated GHG are a significant contribution – but not necessarily the only significant contribution – lots of variables
- We (humanity) can make significant reductions that may slow but not stop changes now underway
- If we completely stopped emissions now, globally, it would take about a century before concentrations would retreat significantly



## My Convictions, continued



- We **MUST** do what we can to reduce as much as we can within reasonable limits.
- Whatever that is, it won't be nearly enough, even if the rest of the world joins in.
- Many steps to reduce GHG will generate jobs and reduce the intake of foreign, and US oil.
- Economics of next 5-10 years will play a big role in what actually happens.

## Background



- Air pollutant emission inventories up until about 1970 were primarily to get a gross handle on relative emissions. Methods were rough and emission factors were spotty and of limited quality, at best.
- EPA (formed in 1970) initiated work on a National Emissions Data System (NEDS), then AIRS and then the NIF, now reworking and upgrading system.
- About 1990, a separate part of EPA initiated work on Climate Registries/inventories- currently annual reports by EPA on US Emission Totals.

## Background - Continued

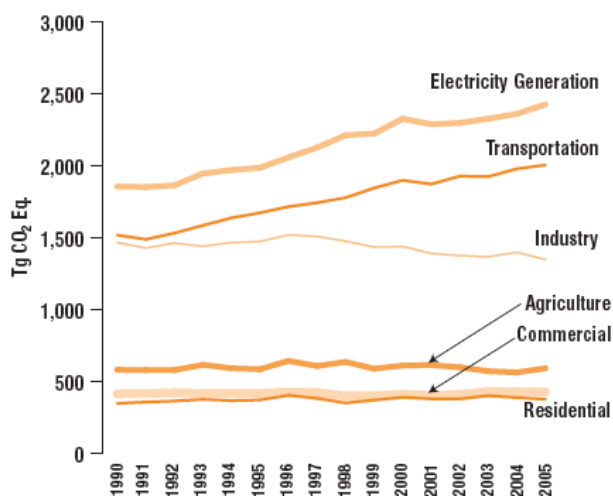


- Several systems have been initiated or developed to accept and track data with some penetration into emission estimation for GHG.
- These systems were not initiated from a traditional emission inventory basis.
- Thus, the wheel was re-designed and now does not synchronize with the old air quality systems,
- And states are being asked to make the GHG systems work and continue their traditional roles.

## U.S. 2005 GHG Emissions



Emissions Allocated to Economic Sectors



Stolen from EPA

## Some Reporting programs and Major Related Activities Underway



- **EPA CAA Title IV-Acid Rain** – Continuous emission monitors-real data- little appreciated by climate community but covers largest point source category of GHG emissions
- **EPA** - Climate Leaders, etc; **DOE 1605(b)** – voluntary, limitations and problems, little support, spotty participation  
EPA and DOE data did/do not talk to each other or cross reference
- **State Programs**- e.g., California,, RGGI, other state programs from whence came **The Climate Registry (aka TCR)**
- **Corporate and Industry Programs & Protocols** - e.g., WRI/WBCSD, API Compendium, CSI Protocol (cement), International Aluminum Institute, etc
- **US Congress** – Some Legislation perhaps by mid 2009  
WILL VERY LIKELY impact many or ALL of the above

## Background (continued)

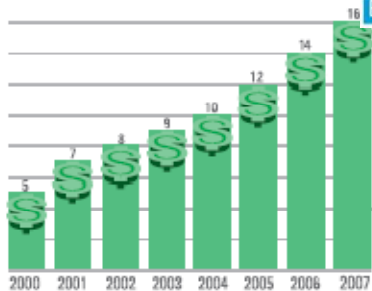


- State and regional (namely NESCAUM and CA) led the way toward states actively preparing for state registries/inventories
- In 2004-2005, these efforts began to unify and in 2007 The Climate Registry (TCR) came to be.
- Ironically, the state agencies typically which have been tapped to carry out efforts to fulfill the TCR specifications have been the traditional air agencies of the states and other members.

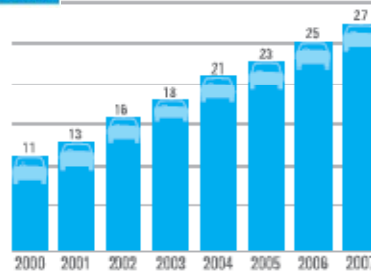
## Member States, Provinces, and Tribes of the TCR



## Various EPA Energy Efficiency Programs to Reduce CO<sub>2</sub> e



Utility Bill Savings  
(in billions)



Emissions Saved in  
Vehicle Equivalents  
(in millions)

Slide stolen from EPA

## EPA Climate Change or GHG Reduction Programs



## Legislative Status

- Nothing up till now on ultimate use/objectives
  - Most proposals, bills and votes resulted in “wait until later” or just “no” (strong push back from Bush et. al. influencing a “climate eclipse” at EPA)
- Post election – best guess of a 42 year bureaucrat is give them time and expect nothing before at least mid-2009. (Patience can be a virtue – best to do something right than mess up the chance.)

## EPA PENDING – Mandatory GHG Reporting Rule



- Appropriations - \$3.5 million to EPA (Dec 07)
- Authority – appropriations bill and existing CAA+
- Purpose and Scope- propose mandatory GHG reporting rule
- Data systems – use existing where possible
- Timing and Process – propose in 9 months; final in 18 months: Cooperative; OAQPS and DC climate HQ

Summary- Now at OMB (if not released within last few days)

Options –

- gut and toss out with major changes,
- let go to CFR w/o revisions from draft proposal from EPA,
- ignore and let it die till inauguration,
- Who knows?

## Language

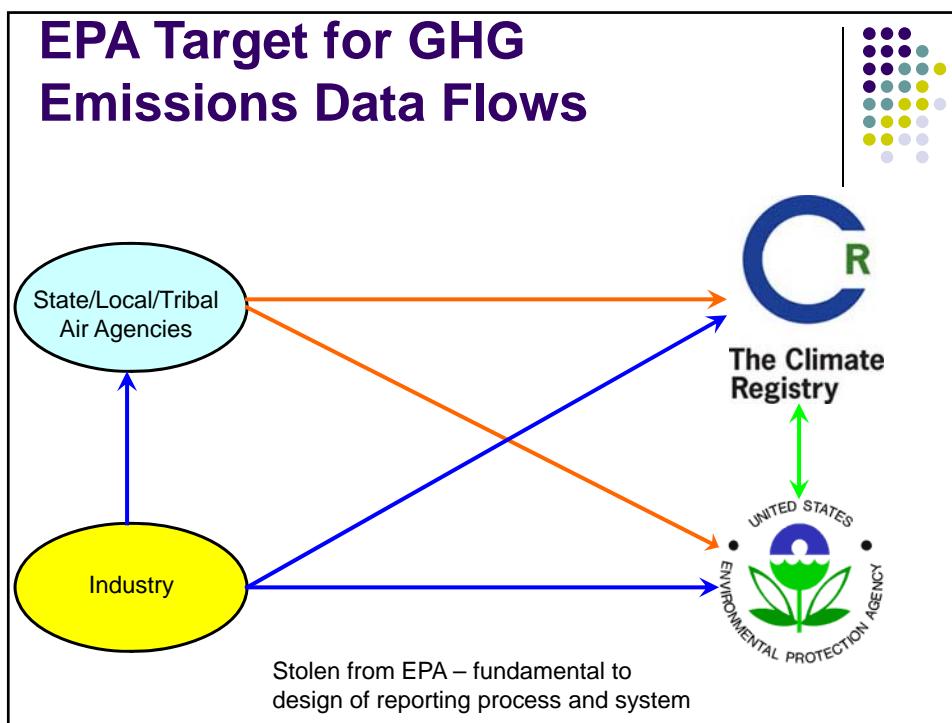


FY2008 Consolidated Appropriations Act:

- "... not less than \$3,500,000 shall be provided for activities to develop and publish a draft rule **not later than 9 months** after the date of enactment of this Act, and a final rule **not later than 18 months** after the date of enactment of this Act, to require mandatory reporting of greenhouse gas emissions **above appropriate thresholds** in **all sectors** of the economy..."

Accompanying Explanatory Statement:

- The Agency shall **"use its existing authority under the Clean Air Act"** to develop a mandatory GHG reporting rule. "The Agency is further directed to include in its rule reporting of emissions resulting from **upstream production and downstream sources**, to the extent that the Administrator deems it appropriate. The Administrator shall determine **appropriate thresholds** of emissions above which reporting is required, and **how frequently** reports shall be submitted to EPA. The Administrator shall have discretion to use existing reporting requirements for electric generating units under Section 821 of the Clean Air Act...."



## EPA PENDING – Advanced Proposal of Proposed Rule Making

- How to use CAA to regulate GHG
  - Comments already due (Nov 28)
  - Could take months/years to develop a proposed rule and a final
  - Tends to undermine existing CAA uses
  - Trying to shoehorn a new requirement where it was not designed to go (direct health/welfare)
  - Will eventually require legislation or go away with legislation in 2009

## Problem?



- In the span of time that air quality and climate communities were in eclipse from each other, different methods and “languages” developed.
- Now, it appears that these may require some deliberate negotiation and efforts to reach commonality and a universal language among these newly co-joined communities so that they can be effective.

## Some Language/Terminology Areas to Start to Harmonize



- Estimate vs. Measure
- Orientation to permits vs business definitions
- Terms like “additionally”
- Data details-
  - Inter state/nation
  - Location definitions, i.d. #'s, coordinates, etc.
  - Estimation protocols (e.g. mobile sources)
  - Equipment definition/detail differences
  - Added pollutants (more than 6)
  - Certification by third party or agency staff

## Bottom Lines - a few of several



- Many directions, many forces of change; some complex and counteracting – a lot of sorting and “deciding” to take place
- Many terms and definitions are different; need a resolving council or deliberate process to standardize
- With new administration and Congress, what is, and is likely not to be – changes
- Little can be decided until a purpose is defined and provided
- Time will smooth some of the differences soon, but others will take lots of time and deliberate effort
- Please comment on proposals and help pressure to get this worked out officially and consistently, before the concrete sets!

## Questions/Contact?



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