

December 4, 2018

The ABC's of Air Quality Regulation

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Environment & Energy Conference

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Air quality regulation acronymmania...

GHG
SIP
NSR
NAAQS
Pb
SO₂
PSD
NO_x
Hg
BACT
ozone
nonattainment
PM2.5
RACT



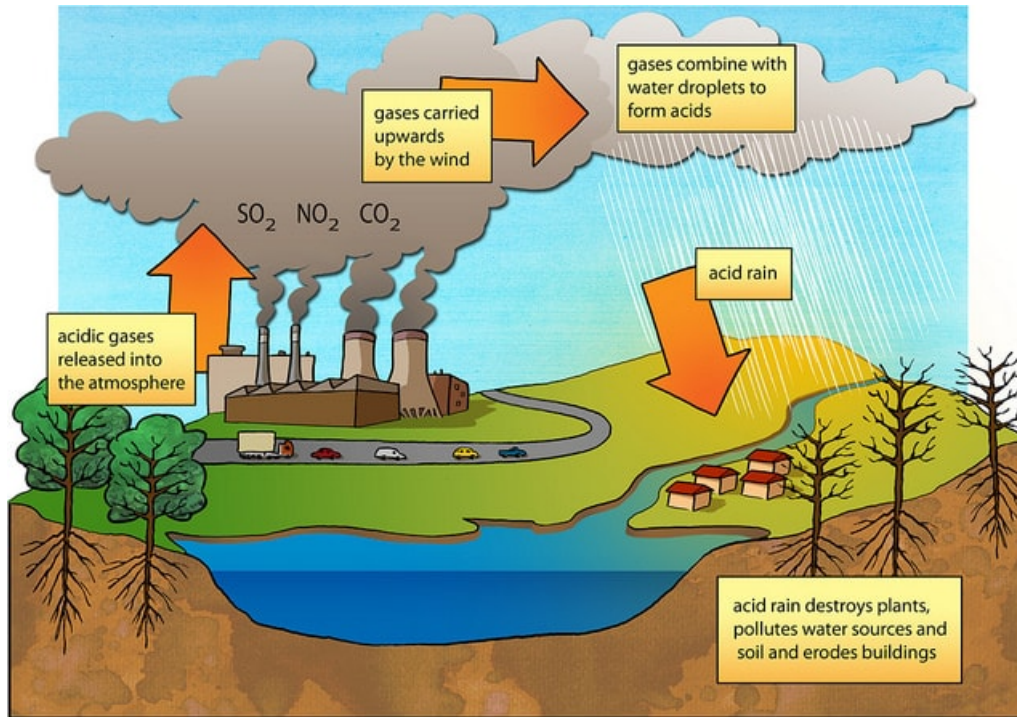
Overview

- What are all those acronyms?
- Which pollutants matter?
- How does the regulation process work?
- What's the role of state and local agencies, and US EPA?
- Where can you make a difference?

Which pollutants matter?



Nitrogen Oxide impacts

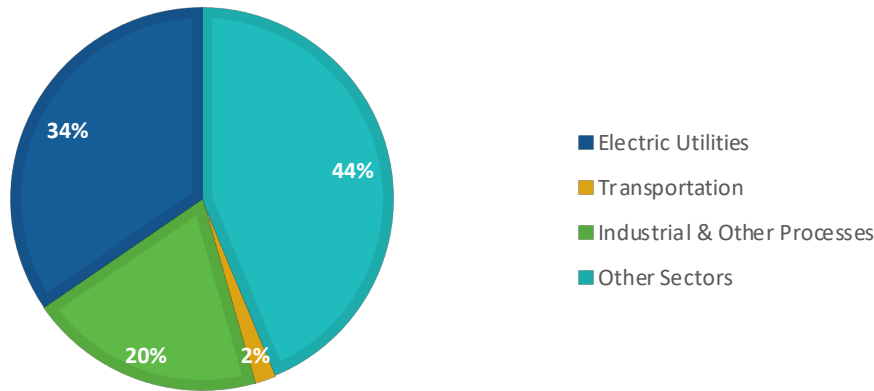


Source: flickr.com

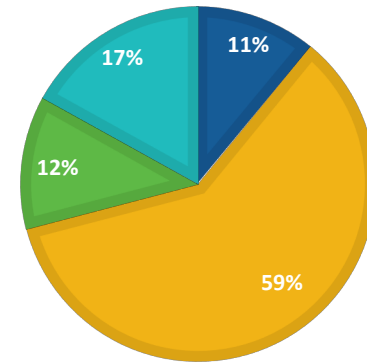
- Acid Rain and Transported Pollution
- Visibility Impairment
- Water Body Eutrophication
- Ground-level Ozone (Smog)
- Fine Particle Health Impacts

US pollutants of concern

SULFUR DIOXIDE, 2017

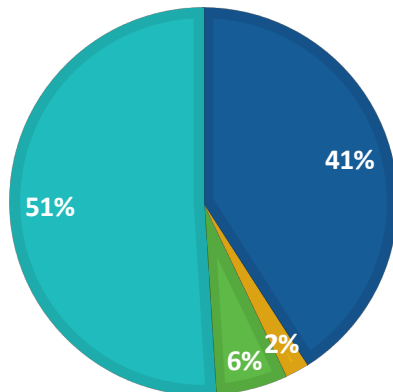


NITROGEN OXIDES, 2017



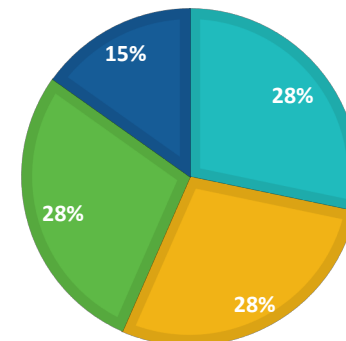
MERCURY, 2014

Utility Boilers Mobile Sources C&I Boilers/Heaters All Other Sectors

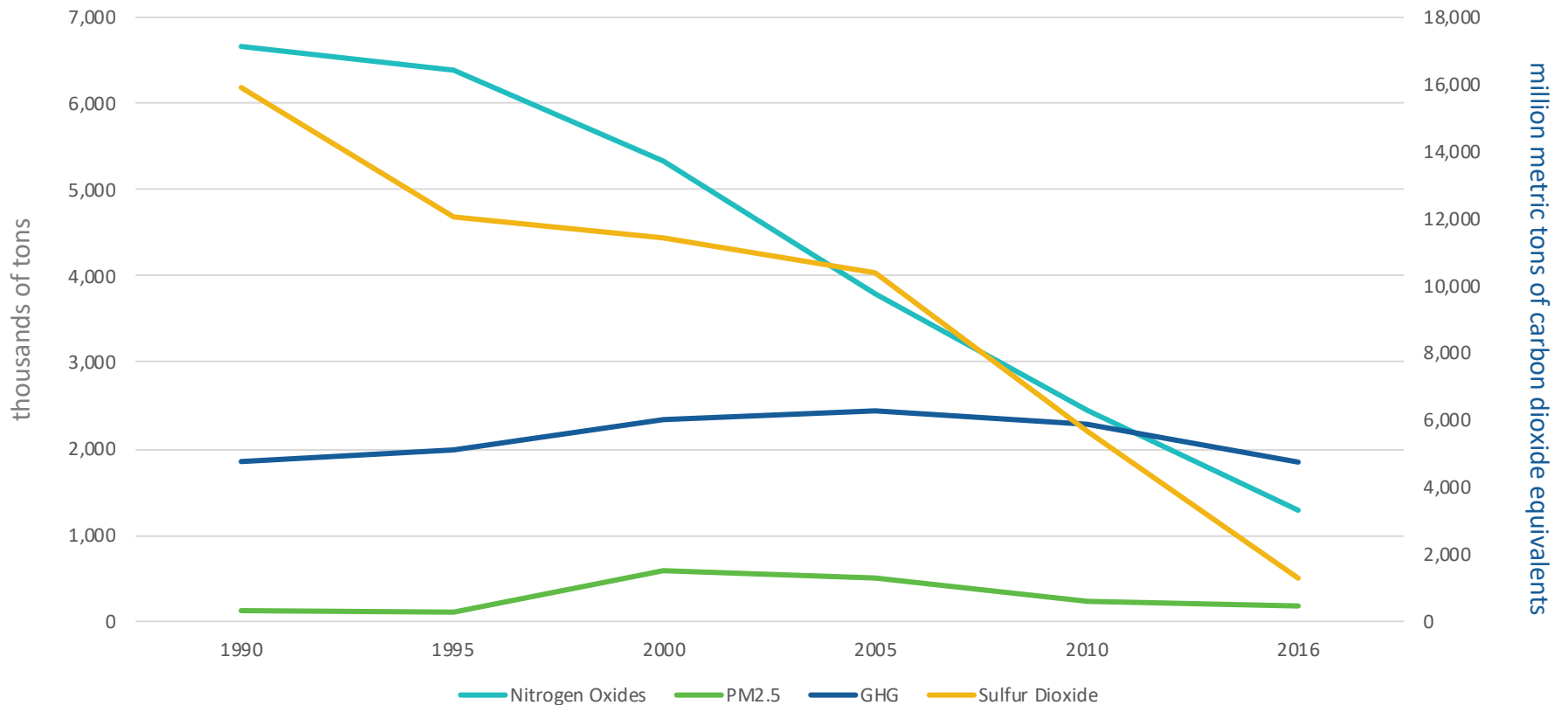


GREENHOUSE GAS, 2016

Electric Power Industry Transportation Commercial & Industrial Other Sectors

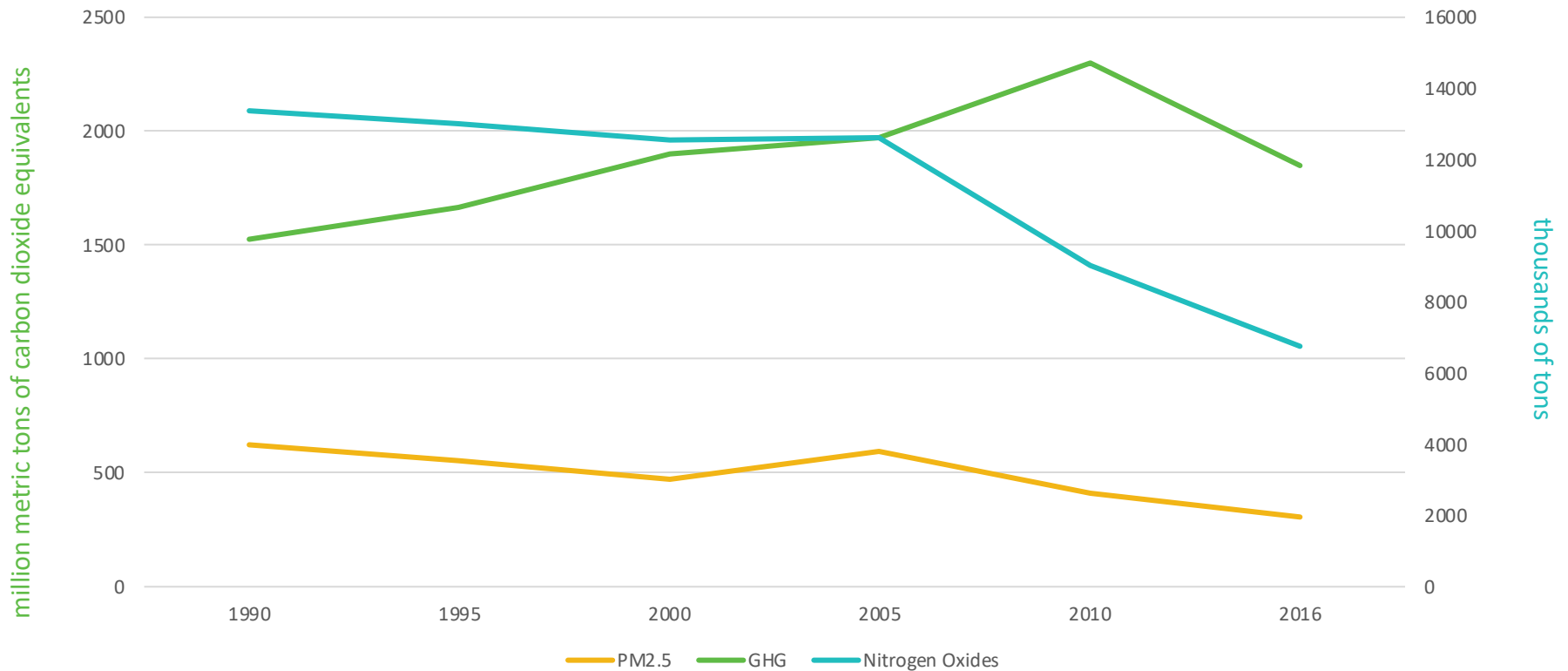


Electric sector emissions



Sources: U.S. EPA National Emissions Inventory, 2017, https://www.epa.gov/sites/production/files/2018-01/documents/2018_executive_summary.pdf

Transportation sector emissions



Sources: U.S. EPA National Emissions Inventory, 2017, https://www.epa.gov/sites/production/files/2018-01/documents/2018_executive_summary.pdf

The Regulatory Process



Roles and responsibilities

- EPA
- State and local agencies
- National ambient air quality standards (NAAQS)
- Nonattainment
- State Implementation Plan (SIP)
- Plan, monitor, enforce, revise

Steps in the regulatory process

- Stakeholder group(s)
- Proposal
- Comment period
- Final regulation
- Implementation
- Review and revision

What can you do?

- Learn more about air pollution in your area
 - E.g., 4cleanair.org, Airnow.gov
- Participate in regulatory processes & comment periods
- Collaborate with others

4cleanair.org – National Assoc. of Clean Air Agencies

The screenshot shows the homepage of 4cleanair.org. At the top left is the NACAA logo (National Association of Clean Air Agencies). To the right are links for "Member Login" and a search bar. Below the logo are navigation links: "Clean Air Topics", "State & Local Agencies", "Policy", and "Stakeholders". The main banner features a large image of a green field with the text "EXPLORE CLEAN AIR TOPICS" in the center, flanked by left and right arrows. Below the banner are four smaller images with text overlays: "EXPLORE CLEAN AIR", "FIND STATE & LOCAL", "READ ABOUT OUR", and "LEARN ABOUT NACAA".

CLEAN AIR NEWS [Back](#) [Next](#)

- [NACAA Comments on Proposed Affordable Clean Energy Rule](#)
- [NACAA Comments on EPA-NHTSA Proposed SAFE Vehicles Rule](#)
- [NACAA Comments on EPA FY 2020-21 National Program Guidance](#)

[View All](#)

WHAT'S HAPPENING IN CONGRESS

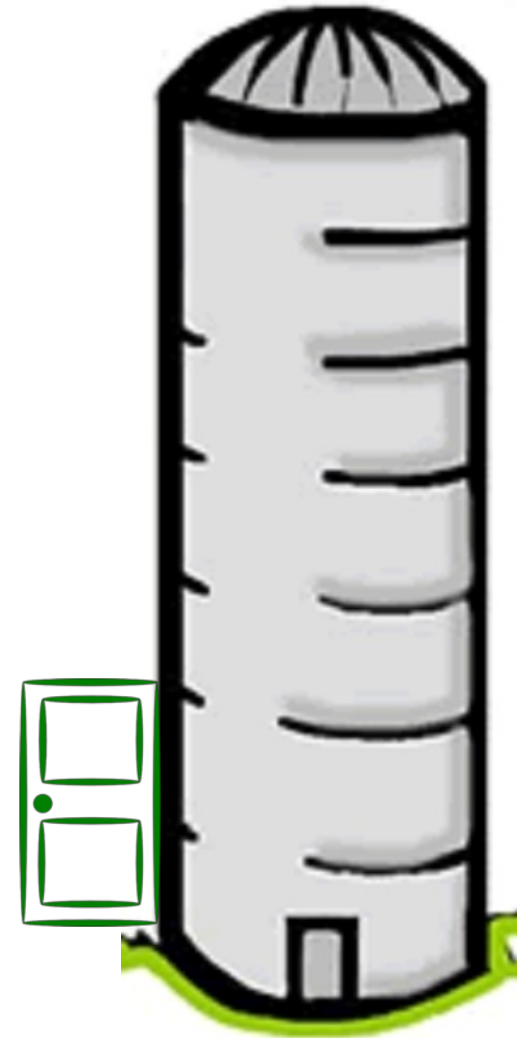
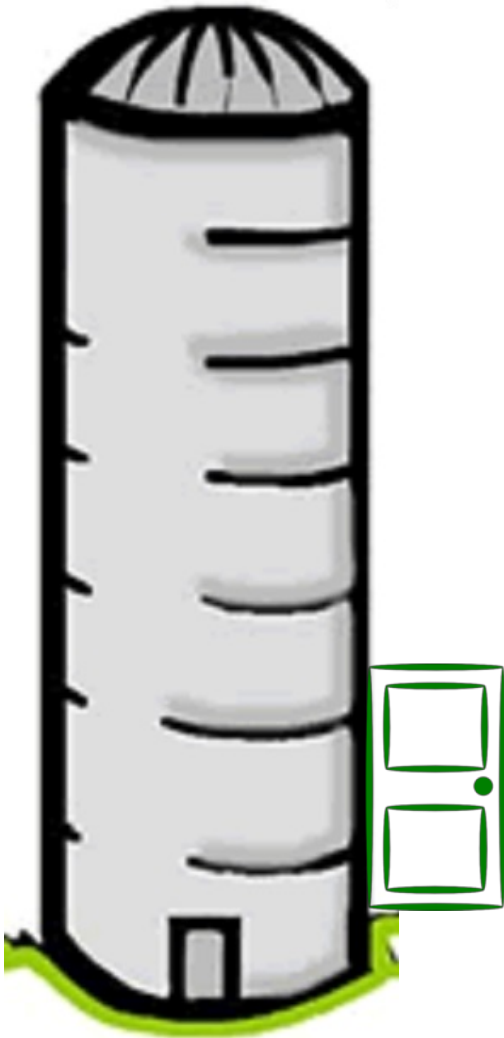
- [CLEAN AIR ACT AND RELATED ISSUES - 115TH CONGRESS \(2017-2018\)](#)
- [CLEAN AIR ACT AND RELATED ISSUES - 114TH CONGRESS \(2015-2016\)](#)
- [APPROPRIATIONS](#)
- [CLIMATE CHANGE](#)
- [TRANSPORTATION REAUTHORIZATION](#)

AIRNOW Check your air quality in real-time. [GO](#) +

EDUCATIONAL TOOLS
Want some interesting ways to learn about air pollution and how to clean it up? Check out these games, videos and resources. Then put your knowledge to work!

DID YOU KNOW?
The top 50 dirtiest power plants in the U.S. account for 41.5 percent of nitrogen oxide emissions but only generate 28.7 percent of the net electricity.

The power of collaboration



Resources from RAP

- [Beneficial Electrification: Ensuring Electrification in the Public Interest](#)
- [Quantifying the Air Quality Impacts of Energy Efficiency Policies and Programs](#)
- [Purple Haze or Purple Mountain Majesties? How Energy Efficiency Can Reduce Regional Haze \(blog post\)](#)
- [Recognizing the Full Value of Energy Efficiency](#)
- [Using Energy Efficiency to Advance Air Quality Compliance](#)

About RAP

The Regulatory Assistance Project (RAP)® is an independent, non-partisan, non-governmental organization dedicated to accelerating the transition to a clean, reliable, and efficient energy future.

Learn more about our work at raponline.org



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EPA's AirNow website

The screenshot displays the EPA's AirNow website interface. At the top left is the AirNow logo. To the right is a search bar with a "GO!" button. Below the search bar is a "Local Air Quality Conditions" section with a "Zip Code:" field containing "Zip Co" and a "Go" button, and a "State:" dropdown menu set to "Alabama" with a "Go" button. A "My Current Location" link is also present.

The main content area features a navigation bar with "Current AQI", "Forecast", "AQI Loop", and "More Maps" tabs. The "Current AQI" tab is active, showing a map of the United States titled "Current AQI (Combined PM and O₃)" for "Wednesday, November 14, 2018 1:00 PM EST". The map uses a color scale from green (good) to red (hazardous) to indicate air quality levels. High concentrations of yellow and orange are visible in the western United States, particularly in California. Inset maps for Alaska, Hawaii, and Puerto Rico are shown at the bottom left of the main map. A "Generated: 2018-11-14 18:27:50Z" timestamp is at the bottom right of the map.

On the right side of the page, there are several informational sections:

- Fires: Current Conditions**: A red header with a "Click to see map" link.
- U.S. Embassies and Consulates**: A section with a U.S. flag icon and text: "Data from air quality monitors at select U.S. embassies and consulates around the world".
- Announcements**: A section with text: "To increase our capacity to provide air quality information in light of high demand, EPA is reviving our pre-September 2018 version of AirNow to supplement our redesigned website" and a "more announcements" link.
- Air Quality Basics**: A section with a dropdown arrow and links for "Air Quality Index", "Ozone", "Particle Pollution", "Smoke from fires", and "What You Can Do".
- Health**: A button with a right-pointing arrow.
- Learning Center**: A button with a right-pointing arrow.